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"Scire est nescire, nisi id me Scire alius sciret."

SEPTEMBER, 1904.

Obituary.

EDWARD CROSSMAN, M.D.

It is with much regret we record the death of Edward Crossman, of White's Hill, Hambrook, Bristol. Dr. Crossman was born at Lower Hazel, Alveston, Gloucestershire, on September 30th, 1832. His death took place somewhat suddenly, though not unexpectedly, at his residence at White's Hill on September 1st, 1904, at the age of 72, owing to an attack of dyspnœa connected with heart disease. A Gloucestershire man, of a good old family and highly connected, the name of Crossman is well known. His loss will be mourned by a large circle of medical and lay friends.

Dr. Crossman received his professional education in London at the London Hospital, where eventually he held the important post of House Surgeon; having qualified in 1855 as M.R.C.S. and L.S.A., while in 1869 he obtained the L.R.C.P. Lond. He further pursued his studies in Paris, as was not an uncommon thing at that time for a student to do.

He began his life's work at Hambrook, where he came as

assistant to Mr. John Hay, a surgeon of the old school, well known and thought much of in the neighbourhood. He shortly afterwards entered into partnership with Mr. Hay in 1856, and eventually succeeded to the practice. Dr. Crossman in this way was a link between the old school of practitioners who freely bled and blistered their patients, cupped them, leeched them, and used the seton, well represented in Mr. John Hay, and the newer school of medicine and surgery with its more carefully thought-out and applied practice.

His bright and cheery disposition was united to an intellectual power of no mean order, with a zeal and true devotion to his work. His thought and care over his cases was full of deep anxiety that no necessary point should be lost sight of, but due weight given it in the interest of the patient's well-being and the issue of the case. To this was added the greatest kindness, consideration, and sympathy. It need hardly be added that he was one who was entirely qualified for the practice of his art, as well as one whose opinion was highly valued by his medical brethren around. He was an excellent surgeon and a good operator.

He became Medical Officer of Health to Barton Regis District in 1886, where he did good work. He was Senior Surgeon to the Frenchay General Dispensary, and Medical Officer to the Diocesan Training College, Fishponds, where his loss will be much felt. He also gave his gratuitous services to St. Michael's Orphanage at Frampton Cotterell. It will be remembered that in 1883 he was President of the Bath and Bristol Branch of the British Medical Association.

When Mr. Albert Napper, of Cranleigh, started the idea of cottage hospitals, Dr. Crossman was greatly interested in the matter, and saw Mr. Napper several times about it. Having made himself well acquainted with the details of the subject, he set to work himself to start such a hospital in his own district. He, his family and friends were successful in their efforts, and the Hambrook Village Hospital was opened in 1867 as a memorial of his work in this direction. It has been highly valued in the neighbourhood and proved itself a most useful institution. What Dr. Crossman and his family have done for

the institution, or the great good that has been effected by it, none hardly but themselves know.

Dr. Crossman, notwithstanding all the work that was entailed by his large practice and by his other many interests in life, showing how great his physical and mental powers were, undertook the arduous task of going up to Durham in 1886 and taking its M.D. degree: not long after this his son, Dr. Frank Crossman, joined him in the practice.

Dr. Crossman took deep interest in other matters than those of his profession. He was an ardent Freemason, and for many years a most regular and interested attendant at the meetings and other duties of his lodge.

Dr. Crossman was also a loyal and staunch Churchman, and took an intelligent and deep interest in Church matters, being a member of the Diocesan Conference for many years, and a member of the House of Laymen. He was one of those chiefly interested in obtaining the formation of the Ecclesiastical District of Winterbourne Down, as well as the building of the Church of All Saints and the Vicarage. From the commencement he was churchwarden, and was rarely absent from his post at the chief services of the church. He was a manager of the Parish Schools, which owe much to his supervision. All Saints, Winterbourne Down, will lose in him one who has been most intimately bound up in its development and welfare as a parish.

With such an activity of mind and body, it cannot be surprising to find he was an ardent politician—an active supporter of the Primrose League and of the Member of Parliament. On such occasions his speeches were of a high order and very telling with his audiences.

Medical men of his time took less notice of the need of rest than is now considered right. Dr. Crossman, though no holiday-taker, still was a keen sportsman. He was an excellent shot, enjoying a day's shooting over dogs in the old-fashioned style, while not entirely opposed to more modern ways. He was at such times full of pleasant fun, and enjoyed the jokes of his fellow-guns after a day's shooting in Somersetshire or amongst the grouse and the oats at Llanthony Abbey.

The loss of such a man will fall heavily on his family, but the loss will not be theirs alone. The clergy, the parish workers, his relatives, friends, patients, and fellow-parishioners will all feel his loss, and their sympathy and mourning will be a touching testimony of the worth in which he was held in the thoughts and affections of his fellow-men amongst whom he lived and worked in so many ways.

It has been said that a lengthy obituary notice might be abbreviated as follows: "He was a good man, for he loved his garden." The garden was a hobby of Crossman's. He had a great love for his flowers, as well as for his vegetables and fruit. A good deal of his spare time was spent in it and in the tree-margined, beautiful little valley through which the River Frome wanders at the foot of the steep rocks on which his house of White's Hill is built. Advice had been given him, since his anxious condition had been known, not to exert himself in his work or to climb the steep slopes in his grounds. But he had done it all his life, and it was difficult to tear himself from it. Perhaps some over-exertion of this sort on the evening of September 1st excited the fatal attack which brought his honoured career to an end. Thus it can be said he died as no doubt he would have wished—at work until the end—and now he lies in God's garden at rest and in peace.

LAC VINUM INFANTUM:

A REVIEW OF THE WORK OF INFANT MILK DEPÔTS.

BY

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THE fact that we are a self-governing people is so often stated that it is in danger of losing its significance. Reforms and improvements are, however, largely undertaken in response to public demand, and thus it is of the first importance that the public mind should be properly instructed on the various

questions of the day. In matters of hygiene and public health the medical profession can exercise an almost unlimited educational influence, and it is with a view of calling the attention of the profession to a subject which is now receiving much consideration in other places that the present article has been written. The subject alluded to is the infant death-rate and the means to be taken for its diminution. The limits of space prevent my quoting figures and authorities for the following premises, but they are sufficiently well recognised to render such a proceeding merely of academic interest:—

1. The mortality of children under one year is very high, especially in large towns, and has not decreased proportionately to the general mortality.
2. It is highest during the first three months of life.
3. It is much higher among artificially fed children than among those fed on breast-milk alone.
4. Breast-feeding is becoming less frequent, and for physical and social reasons is not likely to become much commoner at present.
5. The birth-rate shows a marked and steady decrease.

The obvious remedies for this condition of things are, in addition to general measures of sanitary importance, to encourage breast feeding wherever that is possible, and to improve the conditions under which artificially fed children are reared. This will, of course, especially apply to the poorer classes, where ignorance, carelessness, and the "eternal want of pence" make the problem especially grave. Apart from the individual efforts of medical men and others who work among the poor, breast-feeding has been encouraged in France by the "Consultations des Nourrissons" instituted by M. Budin. Excellent in both intention and results, these establishments are necessarily very slow in operation, can affect but a small proportion of the population and are mainly of value from an educational point of view. Infant day nurseries, which in England are entirely charitable institutions, though in France they are mainly State-supported or State-aided, provide a much-needed assistance to mothers who can neither feed nor take care of

their infants. They are, however, costly, each child necessitating an expenditure of from five to ten pounds per annum, and they are not applicable to the large number of cases in which the mother can take charge of her child, though unable through ignorance or poverty to feed it correctly.

There remains yet another method of dealing with the care and feeding of infants of the poorer classes, namely the establishment of milk depôts, or as they are fancifully called, "gouttes de lait." These are primarily institutions for the supply of milk, modified to suit the needs of infants, to the poorer classes at a small charge, in cases where the mother is unable to suckle her infant. In France they are mainly carried on under private medical supervision; in Great Britain the few that have been established are worked by the municipal authorities, and are under the control of the Medical Officer of Health. Generally speaking, the arrangements in the British depôts are as follows:—The milk is supplied by a contractor, under very strict conditions as to quality and purity, the authorities having full rights of testing and inspecting the milk at all stages, from the udder of the cow to the door of the depôt. At the depôt it is modified and "sterilised," and sold to applicants in stoppered bottles, each bottle containing enough for one feed, according to the age of the child for whom it is intended. Enough bottles for 24 hours are sold together in a metal case or basket; a rubber teat is provided, which, when the stopper is removed, fits the neck of the bottle, and full verbal and printed instructions are given to the mothers with the milk. In addition to this a staff of lady-inspectors is organised, who visit the mothers, see that the feeding is properly carried out, instruct them as to the care of the children, and in all necessary cases urge them to call in medical advice. Mothers are also specially told that the milk is only intended for children who cannot be fed on the breast. In Liverpool an arrangement is made with the ordinary dairymen by which the milk can be obtained at their shops, while in York the entire distribution is under contract with various shopkeepers.

With regard to the cost of these institutions, I have been able to collate the experience of five different towns. In

Liverpool the initial cost, before the first depôt was opened, amounted to just over £125, and the total expenditure during the four years 1900-1903 has been about £10,500. During the last three years, during which time the depôt has been open, £4,200, roughly, has been realised by the sale of milk, leaving a net deficit of about £6,300. Over 6,000 infants have been supplied during the three years. In Battersea the amount spent on alteration of premises, machinery, &c., since June, 1902, is about £700. The annual deficit is calculated at £150, and at the end of 1902 300 children were being fed, a figure which had increased to 360 by March, 1903. At St. Helens, where the depôt is not very largely supported, the installation originally cost £255. The Corporation pays rent, wages and wear and tear of plant, and the sale of milk brings in £187 (a little more than its original cost) per annum. At Glasgow the estimated original cost was £650. At York the depôt is maintained at the expense of Mr. B. Seebohm Rowntree, and is not a municipal affair. I am much indebted to Mr. Rowntree for a very full account of the working and results of the institution. The initial cost was £250. This included machinery and plant capable of supplying 400 babies, and bottles, &c., for 50, and the annual loss is over £100 per annum. About 300 children have been on the books since the depôt was opened, nearly a year ago, and 70 are now being supplied (August 3rd, 1904).

The milk is sold at the following prices:—

Liverpool.—1s. 6d. a week for all ages.

Battersea.—1 to 6 months, 1s. 6d. a week; 6 to 12 months, 2s. a week; over 1 year, 2s. 6d. a week. For children living outside the borough 6d. a week extra is charged.

Glasgow.—1 to 3 months, 1s. 2d. a week; 3 to 6 months, 1s. 5½d. a week; 6 to 8 months, 1s. 9d. a week; over 9 months, 2s. 4d. a week.

York.—1 to 6 months, 1s. 6d. a week; 7 to 8 months, 1s. 9d. a week; over 8 months, 2s. a week.

The Battersea Corporation pay 9½d. a gallon for milk and 1s. 4d. a pint for cream; in York the milk costs 9d. a gallon in summer and 10d. in winter, and cream is the same price as in Battersea. It is impossible from the figures given to calculate

the cost per child per annum, as the length of attendance varies so greatly in different cases.

I will now proceed to deal with the results of these undertakings, as far as they can be estimated. Statistical evidence is notoriously misleading, and that adduced both for and against milk depôts forms no exception to this rule. One method is to compare the infant mortality per 1,000 births for a number of years before and after the establishment of the depôts. Thus Peyroux showed that out of nine French towns where milk depôts had been established the results were unfavourable in three, mediocre in two, a little improved in one, and favourable in only three. Hope showed a marked reduction in infant mortality in Liverpool subsequent to the establishment of the depôts. The average for the three years 1896—1900 was 188 per 1,000 births, in 1901 it was the same, in 1902 and 1903 it fell to 163 and 151 respectively. McCleary in Battersea gives the average for 1897—1901 as 161.8, in 1902 the rate was 136, and in 1903 135. The figures of the Straus Depôt in New York point in the same direction. McCleary, however, has summarised the fallacies involved in this method of comparison. In the first place the number of infants fed at the depôts is too small to influence the death-rate to the degree which the figures seem to indicate; and secondly, other influences such as climatic conditions, epidemic disease, improved sanitation have come into play simultaneously with the establishment of the milk depôts and influenced the death-rate in one or other direction. A more reliable method seems to be to compare the mortality among depôt-fed children with the general mortality of the district among infants under twelve months of age per 1,000 births.

Liverpool.—Average death-rate for 1901—1903, 167.3 per 1,000; average death-rate among 4,435 depôt-fed children who were kept under observation, 78 per 1,000.

Battersea.—Average death-rate for six months ending December 31st, 1902, 143 per 1,000; average death-rate among 394 depôt-fed children under one year for same period, 98.9 per 1,000. If children dying during first week of life in the borough are deducted from

the first average, and fourteen fatal cases where the milk was taken for less than one week omitted from the 394 depôt-fed children, the averages are 118.9 and 63.4 per 1,000.

St. Helens.—Average death-rate in borough for 1899—1902, 172.2 per 1,000; average death-rate among depôt-fed children during same period, 98.2 per 1,000. During the first three years children dying after less than one week on the milk are deducted, and in 1902 the period was lengthened to fourteen days. Only children under one year are included.

In considering these figures it must be remembered that in many cases the children were seriously ill before starting the depôt milk, while in others it was only taken for a short time. On the other hand, the figures for the total mortality included breast-fed children. Dr. Ashby, while maintaining a generally friendly but critical attitude towards the milk depôts, refuses to place any confidence in these figures; he points out that the social status of the parents and the length of time during which the milk was taken should be considered, and inquires whether children who only survived their birth a few days are counted as depôt-fed, or placed under the "general mortality" class. As to the first factor, it must be pointed out that the "general mortality" class includes probably all children of good social status, and the depôt-fed only those of the poorer population: the length of time during which the children were depôt-fed is in two instances allowed for, while in the Battersea figures children surviving for one week are excluded from the general mortality. Mr. Rowntree does not think that the statistics for York are capable of useful quotation, but states that the children kept under observation and regularly weighed have made good progress. Apart, however, from the statistical evidence, there is a very general opinion among medical men there and others who have experience in the districts where milk depôts exist that the results are, on the whole, excellent. In Battersea, in response to a circular from Dr. McCleary, forty medical men reported favourably on the milk, three stated that their experience was not sufficiently large, and only one "found

the results disappointing." Park and Holt, in their systematic and extensive researches in New York, found that practitioners there were practically unanimous in their high opinion of the work of the milk depôts.

Criticism is a sound wine, and all new schemes, if they possess any real vitality, are stimulated by it. The general objections raised to the establishment of milk depôts in England must now be considered. These may broadly be divided into (1) socio-political and (2) medical.

1. It has been urged that it is outside the functions of a municipality to distribute "sterilised" and modified milk. Now to determine exactly the functions of a municipality would at the present time be a difficult matter. What is certain is that the general conception of the duties of local authorities is undergoing a process of expansion, and that the limits of these duties are apt to be somewhat arbitrarily laid down in special cases to suit the preconceived opinions of this or that individual. It is generally conceded that the municipality ought to take measures to secure a pure milk supply in the same way that it should secure a pure water supply. If the water supply, though originally pure, became so contaminated by the carelessness of the local water company in its transit from the reservoirs to the houses that it became a source of danger to the people, the local authority would undoubtedly be called upon in no uncertain voice to take the distribution of the water into its own hands and see that it was properly done, even at a large cost to the ratepayers. The analogy between the water supply and the milk supply, though not perhaps exact, because the one affects the entire population and the other only a portion of it—and that a portion which is incapable of lodging an articulate protest—is sufficiently near to be suggestive. It may, of course, be said that, given such stringent regulations as to milk contamination that it can be certain of reaching the consumer in a pure state, all that is necessary is to educate mothers as to the importance of cleanliness and exactitude in feeding their infants. This may be true, but from an educational point of view few methods could be found so effective as the

object-lesson provided by a properly conducted milk depôt with its staff of lady inspectors and its living testimony to the good effects of care and intelligence in the matter of artificial feeding. There is, of course, one town in Great Britain where a milk depôt is maintained by private philanthropy, but it is doubtful, at any rate, whether this splendid example will be very extensively followed.

Another objection is that the system tends to "pauperise" the people, an objection which is likely to be largely supported by the vendors of impure milk; but even granting that this view has some definite value, the fact must not be forgotten that it is the problem of infant mortality which has to be solved. Anxiety not to pauperise the parents of the present generation should not allow us to decimate in advance the prospective parents of the next.

2. The medical objections are three in number. It has been particularly urged against milk depôts in France that they tend to discourage breast feeding, and the same thing has been said in England. This is an objection unsupported by figures, and incapable also of statistical disproof. It can only be said that, in this country at any rate, every care is taken to impress upon the mothers that artificial feeding is never to be adopted in preference to breast feeding where the latter is possible; and that among the poorer classes at any rate, where suckling is physically possible and the mother is not compelled to go out all day to work, the extra expense and trouble involved in buying milk at a depôt would certainly act as a deterrent. My own experience, and I believe that of many others, is that women among the poorer classes are generally anxious to suckle their infants, and that when no physical or economic disability exists the difficulty often is to get them to wean their babies at a proper age, breast-fed children two years old being by no means uncommon among hospital out-patients.

The next objection to the British institutions, which has recently been strongly urged by Dr. George Carpenter in the *British Journal of Children's Diseases*, is that they are worked by the municipal authorities, and are not under the direct

control of a qualified medical man, as are most of the similar institutions in France. This question is no doubt a very important and difficult one. In the first place, it seems that any strict system such as obtains in France, involving periodical weighing and inspection of the children, would not be practicable in this country, where such methods are not so easily tolerated, although every effort should be made to get reliable records of the results of the system. Next, the position of the medical officer in charge of a milk depôt would, it seems to me, be an untenable one. Either his functions would be limited to keeping the register and supervising the weighing of the infants, in which case it would be scarcely possible to pay him an adequate salary in consideration of the small amount of work he would probably have to perform for some years, or else he would have to be responsible for the general medical treatment of all the infants attending the depôts. The milk depôt would thus become an out-patient department. Prescribing is useless to the poor apart from dispensing. The whole scope and character of the institution would be changed, and in all probability difficulties would arise with local practitioners and hospital authorities. It seems to me that it is much better to trust to the system of home supervision, and to rely on the ordinary medical resources of the locality in cases where more than a suitable diet is required for the welfare of the children. Are the French results better than the English? In the Montmartre district among 384 depôt-fed infants the mortality was 122 per 1,000. The highest I have found in England is 98.2 per 1,000.

The last objection on medical grounds is that the use of "sterilised" milk tends to the production of infantile scurvy. No doubt this is perfectly true; and although, as far as I am aware, only one case has at present been reported in England among depôt-fed infants, others, less well marked perhaps, as Dr. Ashby suggests, have probably occurred. According to Holt's statistics, more than half the cases of this disease are due to the proprietary foods, and less than one-third to "sterilised" milk. Considering the frequency with which the proprietary foods are used by the poorer classes, the risk of

infantile scurvy would probably not be increased by the introduction of "sterilised" milk in place of them. Moreover, the practice of boiling infants' milk is by no means uncommon among the poor, at any rate at Bristol; and no one can suppose that once boiled its antiscorbutic properties will be restored by placing it in a dirty bottle to which a long and septic tube is attached. Moreover, the system of house inspection would tend towards the early detection of cases, which would then be brought under medical treatment. To supply a boiled milk is, however, by no means the ultimate ideal of the milk depôt. One such institution in Rochester, N.Y., which has organised its own milk supply, is able to dispense with "sterilisation" altogether, and this should be the object at which other depôts should aim.

In conclusion, I should like to sum up a few points which I think of practical importance in the working of a milk depôt.

1. The co-operation of the medical profession and local hospital authorities is absolutely essential to the success of the undertaking. Out-patient departments and lying-in charities can enormously increase the scope of the milk depôt, and assist in getting proper records kept. All medical men can unite in preventing the depôts being used by those who can suckle their infants, and also in disabusing the parents of the idea that depôt milk is a drug only to be used in desperate cases.

2. Efficient house inspection is hardly less important. Misuse of depôt milk is unfortunately not uncommon, and the general educational influence of well-trained and tactful lady inspectors is very great. It goes without saying that their duties must be clearly defined, and that they must not in any case assume the functions of medical advisers.

3. Sales through local dairy shops should be avoided where possible. No control can be exercised over the customers in these cases, and it is significant that in Liverpool the only complaints as to the milk came from parents supplied in this way. On the other hand, there is no reason why the milk should not be on sale in the better quarters of the town at a price which would be profitable both to the depôt and the middleman. This I believe is about to be done in York.

4. It is probably better to dilute and heat the milk, but the terms "humanised" and "sterilised" should be dropped, as they are inaccurate and misleading. "Modified" and "autoclaved" might be substituted. As Dr. Ashby points out, poor people think "humanised" milk must be as good as "human." And Robertson and Mair have shown that unless milk which has been heated to boiling point for half an hour is kept cool, bacteria which are dangerous to young animals rapidly develop in it.

5. Last, but by no means least, the sources of the milk, if not owned by the municipality, should be under the strictest regulations; and the object should be to obtain a milk so free from contamination that the process of heating can be entirely avoided.

REFERENCES.

McCLEARY.—"The Infants' Milk Depôt: Its History and Function," *J. Hygiene*, 1904, iv. 329.

Ibid.—"Municipal Milk Depôts," *Brit. M. J.*, 1903, ii. 146.

MUSSEN.—"Supply of Sterilised Humanised Milk for Infants," *J. State M.*, 1903, xi. 599.

MOORE.—Report of M. O. H. of Huddersfield on Infantile Mortality, June, 1904.

HOPE.—Report on the Health of the City of Liverpool during 1903. (An abstract appeared in the *Lancet*, 1904, ii. 113.)

Ibid.—"Infant Mortality and Milk," *Brit. M. J.*, 1904, i. 784.

ASHBY.—"A Case of Scurvy in an Infant fed on Municipal 'Humanised Milk," *Brit. M. J.*, 1904, i. 479. *Vide* also Editorial, *Ibid.*, 503.

PEYROUX.—*Lancet*, 1903, i. 1410.

Ibid.—*Brit. M. J.*, 1903, i. 95.

Ibid.—*Ibid.*, 1904, i. 741.

VARIOT.—*Ibid.*, 1904, i. 1125.

CARPENTER.—*Brit. J. Childven's Dis.*, 1904, i. 167.

ROBERTSON AND MAIR.—*Brit. M. J.*, 1904, i. 1122.

GLASGOW.—*Ibid.*, 1903, ii. 1168 (Report).

YORK.—*Ibid.*, 1903, ii. 1657 (Editorial). *Vide* also *Lancet*, 1904, i. 1220; *Brit. M. J.*, 1903, ii. 469; *Lancet*, 1904, ii. 315; *Brit. M. J.*, 1903, i. 973.

SOME OBSERVATIONS ON TUBERCULOUS DISEASE OF THE HIP-JOINT IN CHILDHOOD AND YOUTH,

WITH SPECIAL REFERENCE TO EXCISION OF THE JOINT.

BY

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As during an experience of eight years as surgeon to the Children's Hospital I have seen many cases of tuberculous disease of the hip, and have excised the joint for this disease in twenty-four cases[1] under the age of twenty years, I propose, in this paper, to discuss the question of operative treatment, and to refer to other matters in connection with the disease.

Taking first the question of operative treatment in hip disease, I may say that I believe the removal of the head of the femur and diseased foci in the acetabulum (not merely of definite sequestra) reduces the length of the period of recovery very considerably, and may in some cases turn the scale in favour of recovery rather than of persistent suppuration. I have had no death from the operation in a series of twenty-six cases,[2] so that I do not regard the risk as great. No doubt a large number of patients will recover if the abscess is simply opened and drained aseptically, but they will require drainage for a much longer time than if the diseased bone, and as much of the diseased soft parts as possible, are removed at the same time. I regard the indication for excision to be the presence of suppuration in and outside the joint, and although I believe the removal of the diseased head, &c., may do good in cases in which septic disease is

[1] I have included one case in the twenty-four which was not truly an excision, as the whole head was not removed; but as a large sequestrum was removed from the head, it seems desirable to include it.

[2] The only deaths were: (1) Tubercular meningitis two months after operation, and *post-mortem* disease in the hip was found replaced by fibrous union; (2) pulmonary tuberculosis and pneumothorax three months after operation.

present, it is in cases of unopened abscesses that I have had the most satisfactory results, the discharge ceasing, and the disease coming to an end, much more rapidly than would, I think, have occurred with simple drainage of the abscess. In these cases of excision the range of movement in what remains of the joint is often surprisingly free, and I have notes of cases in which the thigh could be flexed to a right angle, and abduction and adduction be carried out to a wide range. Excision of the head may leave rather more shortening than recovery without; but in these suppurating cases there is likely to be considerable wearing away of the surface of the head, and very likely wandering of the head upwards from erosion of the posterior lip of the acetabulum, and thus shortening is produced. Moreover, it is in the lower end rather than the upper end of the femur that growth chiefly takes place. In some cases, however, after excision suppuration does not cease; but this is much less likely to occur after excision than after simply dealing with the abscess sac. I have only once seen the wound inoculated with tubercle, and this was the scar tissue (and surrounding muscles) after previous drainage of the abscess, when at the second operation I excised the joint. At the first operation the abscess, which communicated freely with the joint, was opened, flushed and scraped out; but the only disease found in the head of the femur or the acetabulum consisted in two minute (pin-point) pits in the cartilage of the femoral head, but much soft tuberculous tissue was present in the synovial membrane. The ligamentum teres had disappeared, and the joint surfaces were separated by an effusion of pus into the joint, so that both the head of the femur and the acetabulum could be thoroughly explored. The discharge very rapidly ceased; but another abscess formed in a few months, and in the second operation the scar tissue of the joint and the surrounding muscles were found infiltrated with caseous foci. At this time the cartilage over the femur was thin and blue in parts, but only an eroded portion of the acetabulum had to be gouged away. I have not included this case amongst my cases of excision. A sinus remained for some time after the second operation, and I do not know if it has yet healed. In two or

three of my cases of excision I have seen the scar tissue break down, and then finally heal up again. This may possibly have been due to an infection.

Almost all surgeons in this country are agreed that when abscess forms in hip disease it should be freely opened and flushed and scraped out; but many think that this is enough, and that excision of the joint is not required, whilst others believe that it is better to do the more complete operation. As I have already stated, my own opinion is that much time in recovery is saved by excision. The sequestra we often meet with would certainly take a long time to come away if we did not remove them, and after sawing off the eroded head, gouging out caseous foci in the acetabulum, and cutting and scraping away all diseased soft parts, we frequently get rapid subsidence of suppuration and early healing. Moreover, a pelvic abscess communicating with the joint through a perforated acetabulum is well drained by excision of the head; and such a condition is not very rare, though, as I shall presently show, my own experience does not indicate that perforation of the acetabulum is as common as some writers maintain. But sequestra in the joint I have found to be quite common, for I have looked through my records of these twenty-four cases, and I find that they were present in no less than ten, and in most of the cases several were present either in the head or acetabulum, most often in the latter. One sequestrum measured one inch by half an inch.

I am no advocate of excision in an early stage of hip disease before there is evidence of suppuration in the joint. I think such cases have a very good chance of recovery with rest to the joint; and I do not believe (as some surgeons maintain) that we should operate to remove tuberculous tissue with a view to prevent general infection. We cannot be certain that we remove all such tissue. Who would think of doing an arthrectomy for diffuse sarcoma of a joint? Cutting through tuberculous tissue may just open up the path of the very infection we aim to avoid. Several surgeons who only flush and scrape out hip abscesses, and do not deal with the diseased bone in the joint, are strongly in favour of arthrectomy in suppurating tuberculous

disease of the knee joint, and there is no doubt we have far better opportunity of cutting away all the tuberculous soft tissue in this joint than we can possibly have in the hip. Nevertheless, I believe that we can scrape away much pulpy tissue from the hip and even cut away a fair amount of tissue.[1] I always have operated by the anterior incision, between the sartorius and the tensor fasciæ femoris, and deeper down, between the rectus and gluteus minimus. No muscle is divided, and if arterial branches are cut they are only of the external circumflex artery, and the external cutaneous nerve if exposed can readily be drawn aside. It is sometimes difficult to get the detached head out through this incision, and it is often useful to employ a lithotomy scoop to lever out the head. I always have one ready in cases of hip excision. That the anterior incision is in a bad position for drainage matters little, unless septic sinuses are present, and then a counter opening behind the trochanter can readily be made, guided by the finger within the joint. The question of drainage in these cases of hip excision is an important one. I have drained all my cases. Provided that the surgeon can dress the case himself, or can get the dressing done by someone in whom he has complete confidence as to antiseptic details, I believe that drainage is the best plan. The presence of the tube is harmless, and so long as pus is formed it can flow away, and thus no reopening of an abscess will become necessary. If, however, the surgeon cannot feel confident that septic infection will not take place at the dressing, or if the opening has to be made near the anus or urethra (rarely so in hip disease), then I think it is better to dispense with a drainage-tube and take the risk of re-collection of pus.

In a recent paper on hip diseases[2] three writers are quoted as giving the percentage of cases of hip disease in which there is perforation of the acetabulum as a very large one. Ménard states that in 235 cases it occurred in 100; Vincent, of Lyons,

[1] Since this paper was written I have cut away a mass of gelatinous tuberculous tissue the size of a hen's egg in excising the hip-joint in an adult.

[2] *Practitioner*, 1903, lxx. 89.

reports 12 in 52 cases; and Ollier and Haberern say it is present in one-third of all bad cases. It has been only twice present in my own series of 26 cases, and yet they had all advanced to abscess formation outside the joint.

In one of my cases I had to excise both hip joints. This was a boy, aged 6, in the Children's Hospital. The left hip was operated on in December, 1897, and when seen a year after all movements in the joint were fairly free. Three months later he was re-admitted with signs of disease in the right hip, and again admitted in October, 1899, with abscess in connection with it, and this joint was excised in November, 1899; the wound was soundly healed a month later. I have also excised the hip joint on one side in another case of bilateral disease, and the contrast between the conditions on the two sides is very striking. The child, aged 6, came under my care in the Children's Hospital in November last with septic sinus associated with hip disease on the left side. An abscess in connection with the joint had been opened in another hospital a year before. Whilst she was in the Children's Hospital signs of disease were recognised in connection with the right hip, and in February of this year an abscess formed there and I excised the right hip, and in March the wound was healed, though subsequently a little excoriation appeared on the top of the scar.

An important point bearing somewhat on the treatment of hip disease is the part of the femur most affected, or primarily affected. The general statement in the books at the present time is that the disease starts in the interior of the head or neck, some say in one spot, some in another, but the majority agree that it is in the interior of the bone, and Erichsen gives the record of one case which supports this view. In several of my cases of excision there has been no evidence of disease in the interior of the head or neck, but only surface erosion such as it is agreed is the usual condition in the tuberculous disease of the knee joint. In other cases there have been soft, purulent foci in the head and neck, but it is not possible to say whether this is primary or secondary to a surface erosion, always present, and which itself is very likely secondary to disease starting in the soft tissues of the joint. Because such

surface erosion is not rarely met with without affection of the interior of the bone, and that it is always present even when there is such affection, I should be inclined rather to regard it as the primary condition. Moreover, I have records of three cases in which clearly the disease started in the soft tissue of the joint and just under the periosteum of the neck of the femur. It is generally admitted that tuberculous disease of the knee joint starts most often in the synovial membrane, and if it starts there most frequently in this joint, probably it does so in all joints, for there is no reason why it should start in the interior of the bone most frequently in one joint and in the synovial membrane in another.

But even if the disease only involves the surface of the head, we must nevertheless excise the whole head, for we cannot remove the eroded surface and inspect the cut surface left to see if the bone is sound in the hip, as we can in the case of the knee joint. Nor can we as a rule reach the disease in the acetabulum without excision of the head of the femur. I will now record three of the cases which seemed to me to be examples of disease starting in the soft tissues of the joint. I do not of course maintain that three cases can settle the question as to the structure in which the disease usually arises, but it is a significant fact that in all three the disease seemed to start in the soft structure of the joint, or just under the periosteum, rather than in the interior of the bone.

A child was in the Children's Hospital with hip disease of six weeks' duration and died from pericarditis. Tubercles were found in the lungs. The synovial membrane of the hip joint was abnormally vascular, and much thickened. The periosteum of the neck was at one spot separated from the bone by a small quantity of pulpy tissue, and the surface of the bone was slightly eroded beneath. The ligamentum teres was softened, and gave way in the removal of the head from the acetabulum. There was only one small erosion of the articular cartilage, and that was in the acetabulum. A section of the head and neck of the femur showed no disease in the interior of the bone.

The second case was, I think, the earliest I have had of

tuberculous disease of the hip. The disease was present in an infant 13 months of age, and had existed for six months, death occurring from tubercular disease of the brain. Pus was present in the hip joint, and there was tuberculous disease of the soft tissues of the joint. The ligamentum teres was destroyed. The only morbid change in the cartilage or bones was some little pits in the cartilage.

The third case I have already referred to as one on which I operated a second time for recurrent abscess. Although in this case no section of bones was made, yet it seems to me highly probable that the disease started in the synovial membrane.

I have often found that though the articular surfaces may be extensively eroded, yet no grating can be made out in the joint on free movement under the anæsthetic. There are two explanations given of this: one is that the eroded surfaces are covered by granulations and thus rendered smooth; and the other is that a piece of detached cartilage gets between them. I have, however, found extensive surface erosion, with absence of grating, and neither condition present. The explanation is, I believe, that the eroded surfaces are very moist, and hence not really rough enough to grate. Although adduction with flexion is the usual position in the late stage of the disease, I have several times seen cases of marked abduction even with external abscess.

How extremely common the presence of even a large abscess connected with joint disease without any pyrexia, morning or evening, is hardly sufficiently recognised.

Fixation of the joint, during the active stage of hip disease, is of course due to the contraction of the surrounding muscles, and yet again and again when the patient is deeply under an anæsthetic I have found that such contraction does not subside, and some flexion or adduction persists.

Therefore when we fail to rectify position by weight extension in hip disease, we must not expect that the administration of an anæsthetic will always remove the remaining deformity. It will probably considerably reduce it, but even then weight extension may have to be continued for some time to arrest what deformity is left, for forcible

rectification would impose too great a strain on the joint, and might light up into greater activity the disease there present.

There is one condition which in my experience is very common in tuberculous hip disease, though very little is said about it in books, and that is the enlargement of some of the deep iliac glands, just above Poupert's ligament—not inguinal glands, but deep iliac glands lying on the vessels. I have several times noticed that a condition of marked thickening about the joint, especially if associated with definite œdema, is soon followed by signs of abscess. I should very carefully watch all such cases for evidence of suppuration. And this leads me to draw attention to the need for systematic inspection of all hip cases at regular intervals—certainly every month—for the parents fail to recognise abscess formation, because there is not necessarily any increase of pain, and even the doctor occasionally, if he finds a normal temperature, is apt to think that a swelling forming near the joint cannot contain pus. It is well also to remember that in some of these cases the fluid removed by an exploring syringe looks like turbid serum rather than pus, and yet when the abscess is opened abundant caseous débris and purulent fluid are found within the abscess sac. I should like to call attention to the danger there is in the exploration of doubtful swellings, which may be abscesses, in connection with hip disease, unless the greatest care is taken with the sterilisation of skin and instruments, and unless an effective antiseptic dressing be prepared for application in case of leakage from the puncture. For the surgeon's chances of success with drainage or excision are very seriously reduced by the introduction of any septic organisms. And although it does not apply specially to hip disease, I would like to point out that a definite loose sequestrum removed from the acetabulum or head of the femur in tuberculous disease of the joint, may present on section so many little soft red spots, that if it had been still attached to any living structure, it would probably have been regarded as itself still living. Probably in this way we may now and again leave dead bone, which we regard as simply bare bone, as in dealing with caries of the rib.

There is one fact which fortunately is very striking in the treatment of hip disease, that is the great relief to pain which the application of weight extension gives. It does not, of course, pull the joint surfaces apart; it simply prevents reflex contraction of the muscles, pressing them together, and it should be so applied as not to increase interosseous pressure by leverage, *i.e.* it should be in the line of deformity.

In Treves's book on surgical anatomy is related the case of a child who was admitted into hospital with a splint on the knee joint, but was suffering from hip disease with only referred pain in the knee. I have had a case of hip disease sent into hospital in which incision had been made into the neighbourhood of the knee joint for the relief of pain due to disease of the hip joint, which I subsequently had to excise.

ON THE THROAT AS THE SOURCE OF SYSTEMIC INFECTION IN ACUTE RHEUMATISM.

BY

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IF acute rheumatism (by which term I refer only to that affection that is now very generally regarded as a disease *sui generis*, variously designated as "true rheumatism," "rheumatic fever," "acute rheumatism," &c.) is an infective disease due to a specific micro-organism, it follows that there are portals by which the infecting agent gains entrance to the tissues, and it seems probable that the throat furnishes that point of entry in a considerable, if not the most considerable, percentage of patients.

I am assuming that acute rheumatism depends upon an infective agent, a view which is supported by evidence cited[1] by Cheadle and Church, Hirsch, Newsholme (*Milroy Lectures*,

[1] Allbutt's *System of Medicine*, vol. iii., 1897, p. 4.

1895), Friedländer (cited by Newsholme[1]), &c., &c.; while the clinical and experimental investigations of Triboulet, Wassermann, and Coyon, corroborated and extended by Poynton and Paine[2] and by Beaton and Walker,[3] render it exceedingly probable that the non-capsulated micrococcus which has been isolated and grown from the tonsil, spleen, kidney, lung, and cardiac valvular vegetations is the specific infective agent so long sought.

I may refer to Poynton's last communication, which was published[4] on the 14th of May, describing the results of a bacteriological investigation of a fatal case of chorea and rheumatism. Cultures inoculated in rabbits and monkeys produced the lesions of rheumatic fever, *e.g.* arthritis, pericarditis, endocarditis, and from the tissues of the animals the diplococcus was again isolated in pure culture. Referring to the relation of tonsillitis to rheumatic fever, Poynton states that "it is certain that one channel of infection is through the damaged tonsils, in which the micro-organism is deposited." (P. 1118.)

The relation of acute tonsillitis to acute rheumatism has been recognised for many years. Trousseau,[5] for instance, in 1865 describes the rheumatic sore throat, and goes on to say that "all these phenomena are going to disappear with great rapidity, because they are fugacious, like most affections of a rheumatic nature. The next day . . . another pain will occupy the neck . . .; whilst the day after, one of the shoulders may be the part attacked. . . . Patients who have had several attacks of this kind of sore throat are able at the outset to distinguish the rheumatic affection [of the throat] from a veritable phlegmonous affection." Mackenzie states that "in many rheumatic patients the throat affection is an invariable precursor of a general attack of sub-acute rheumatism."

It is not enough to show that tonsillitis and rheumatic fever are associated. My contention is that they are frequently interdependent. One of the many examples of the infectious nature

[1] *Loc. cit.* [2] *Lancet*, 1900, ii. 861; *Brit. M. J.*, 1904, i. 1117 *et seq.*

[3] *Brit. M. J.*, 1903, i. 237. [4] *Brit. M. J.*, 1904, i. 1117.

[5] *Clin. Méd. de l'Hotel Dieu*, Paris, 1865, t. I., p. 332; cited by Mackenzie, *Dis. of Throat and Nose*, vol. i., 1880, p. 46

of true rheumatic tonsillitis, and therefore of acute rheumatism, is recorded by Lawson.[1] A healthy boy, after bathing in a river, had a moderate attack of tonsillitis, and a week later developed acute rheumatism from which he slowly recovered. His companion, a strong man, sleeping in an adjoining bed, developed tonsillitis ten days after the boy's illness began, and though he had no rheumatic family history, he too, ten days later, developed acute rheumatism and was ill for six weeks. Both subsequently developed serious cardiac symptoms.

Three cases of acute rheumatism in which the affection was spread from one to the other by tonsillitis are recorded by Allaria.[2] The cocci from the tonsils caused arthritis when injected into guineapigs.

That simple acute follicular tonsillitis is contagious can scarcely be questioned. Of this I have cited evidence in the last edition of my *Diseases of the Upper Respiratory Tract*, and it would be easy to multiply examples; but I will not "flog dead horses." Many instances of cardiac complications arising in the course of acute tonsillitis without even any arthritic symptoms of rheumatism have also been recorded.[3]

Some years ago I endeavoured to tabulate observations on the relation between enlarged tonsils and rheumatism, but I found that in a large number of cases of rheumatic fever, even when there was a history of preceding sore throat, there was not only no hypertrophy of the tonsils but often the tonsils were abnormally small or atrophied. I came to the conclusion that when tonsillitis is associated with marked hypertrophy of the tonsils, with or without enlargement of the cervical glands, there is less tendency to the development of systemic rheumatism than in patients without these hypertrophic changes; in other words, *that pronounced local inflammatory reaction is protective, while the slighter forms of tonsillitis without resulting lymphoid tissue hypertrophy are more prone to be the precursors of acute systemic infection*, and thus it seemed futile to hope for any reliable data on this particular point from statistics. This, after all, accords with

[1] *Brit. M. J.*, 1900, i. 1284.

[2] *Riv. crit. di clin. Med.*, November 23rd, 1901; cited in *Med. Ann.*, 1903, p. 581.

[3] F. A. Packard, *Am. J. M. Sc.*, 1900, cxix. 1.

the observations of Trousseau and Mackenzie on the fugacious tendency of what they regarded as true rheumatic sore throat.

Do we not observe a precisely similar relationship between tuberculous disease of the tonsils and cervical glands, for, though tuberculous adenitis with or without subsequent suppuration is a very common disease of childhood, it is comparatively distinctly rare to find evidence of former tuberculous adenitis in pulmonary tuberculosis?

I do not wish to suggest that all cases of acute tonsillitis are true local rheumatism, but that the majority are is rendered probable from the very frequent association of mild rheumatic symptoms and from the remarkable controlling effect of salicylates on the course of the tonsillitis, while in a considerable percentage the local tonsillitis is but the precursor of severe and typical rheumatic fever.

In introducing a discussion in the laryngological section of the British Medical Association meeting at Swansea last year de Havilland Hall said: "I think there is a great deal to be said in favour of the view that tonsillitis is a primary infective disease of the lacunæ, and that rheumatic fever is a secondary disease arising from the absorption of microbes or their products into the system . . . and that in a large number of cases the infection enters the system through Waldeyer's pharyngeal ring, especially the tonsils."

"We have no certain knowledge of the physiological functions of the faucial, lingual and pharyngeal tonsils; but Philip Stöhr has drawn attention to the fact that in their epithelial covering are gaps large enough to allow the passage of leucocytes. . . . Whilst the fissures and crypts of the tonsil form convenient resting-places or 'traps' for microbes, the peculiar anatomical arrangement of their epithelial covering opens the gates to their invasion."[1] Thus the upper respiratory tract is inevitably most prone to the chances of inoculation by any infective agent conveyed by air, and this we already recognise as affording the usual portal of infection by diphtheria largely because we observe the very plain indications of such

[1] Felix Semon and Watson Williams, Allbutt's *System of Medicine*, 1897, iv., 769, 770.

primary infection in this disease. The primary sore throat that is so characteristic of scarlatina is probably the initial lesion and site of invasion of the infective micro-organism, and whether that be the streptococcus of Klein and Gordon, the streptococcus conglomeratus of Kurth, or diplococcus of Class, the early appearance of the coccus in the fauces, tonsils or nasal mucosa, together with the clinical manifestations which mark the course of the disease, warrant our regarding the sore throat as the primary lesion of scarlatina just as a chancre on the penis is usually, though not invariably, the initial lesion and portal of entry of the virus in syphilis.

The readily-identified Klebs-Loeffler bacillus has enabled us to demonstrate that not only is the nose and throat the usual seat of invasion of diphtheria, but that these regions often harbour the bacillus after the clinical symptoms have subsided, and constitute a source of danger to the patient and to those who come in contact with him. It is becoming more generally recognised that the same holds good in scarlatina; and at the last annual meeting of the Incorporated Society of Medical Officers of Health, the medical officer for Swindon stated his opinion that return cases of scarlatina were due to the infectivity of mucous discharges from the nose and throat and ear, and not to desquamation, the infectivity of which was very doubtful. With these views I heartily concur, but I would suggest that in acute rheumatism also we must look to the fauces, tonsils, pharynx, larynx and nose as the common site of invasion, and that the infective agent generally persists in these regions long after the acute symptoms have disappeared. Park and others have shown that staphylococci and streptococci increase greatly in the mouth in virulence and number in damp weather and winter months. Hence we see how climatic conditions determine the virulence and pathogenic activity of these micro-organisms, probably always present in the fauces and tonsils of the recurrent rheumatic. Indeed, it is somewhat difficult to see why otherwise rheumatism should be so responsive to climatic changes.

I submit then that—

1. Acute rheumatism is an infective disease *sui generis*.

2. There is a true rheumatic pharyngitis and tonsillitis.

3. That rheumatic pharyngitis or tonsillitis is a primary infectious disease.

4. That rheumatic fever is a secondary infection, due either to the absorption of the products of the infective micro-organisms or to the growth of such micro-organisms in the tissues, and that the infection may manifest itself in arthritis, pericarditis, endocarditis, chorea, bronchitis, pleurisy, alone or in association.

5. That in a large percentage of cases the portal of infection is in the fauces or pharynx or other region of the upper respiratory tract, but most frequently the oro-pharyngeal lymphoid ring.

6. That there is no proportion between the intensity of the primary local lesion and the appearance or severity of the secondary systemic complications.

THE INDICATIONS FOR OPERATION IN MYO-FIBROMA OF THE UTERUS.

BY

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WHILST there are some who appear to advise the removal of all myo-fibromatous tumours of the uterus, others incline to non-operative treatment throughout. More lives will, however, be saved by a judicious selection of cases for the respective forms of treatment.

The mere presence of a tumour is not a sufficient excuse for operation, and it is clearly the duty of every surgeon, before he advocates the removal of a myo-fibroma, to show either that it is dangerous to life or that it produces so much discomfort as to render existence more or less intolerable.

My remarks are limited to those cases of myo-fibromata which require treatment, if necessary, by abdominal section.

Matthews Duncan[1] says: "I am sure the fatal number of cases is greater than is generally supposed;" and it will help to elucidate the reasons for surgical interference given below if we briefly consider the chief causes of death occurring in cases that have not been subjected to operation:—

1. *Pressure Effects.*—I have been called upon several times to operate for intestinal obstruction in cases of neglected myo-fibroma, and the fatal results from pressure on the urethra or ureters are self-evident.
2. *Hemorrhage.*—The patient may die as a direct result of excessive bleeding, or indirectly from extreme anæmia.
3. *Peritonitis.*—Necrotic changes may occur in the tumour, leading to septic infection of the peritoneum.
4. The occurrence of *pregnancy* in association with a myo-fibroma is a very serious condition, not only from abortion, which is likely to occur, but also from the interference with natural delivery and hemorrhage.

There are other less common causes of death, but the list is sufficiently long to show that myo-fibromata under certain conditions gravely imperil the life of the patient.

A great deal of misunderstanding exists as regards the influence of the menopause on myo-fibromata; women are so often led to suppose that when once the "change of life" occurs all their troubles will cease, and much valuable time is thus often lost by relying upon a false hope. Not only is the menopause often, indeed generally, delayed for some eight or ten years at least, but in many cases the tumour grows more rapidly at the time when it is usually supposed that a diminution in size may be expected.

Much depends upon whether the myo-fibroma is of the "hard" or "soft" varieties. In the hard myo-fibroma, which is comparatively non-vascular, the rate of growth is slow; the tumour enlarges temporarily with menstruation and pregnancy, and after pregnancy and during the menopause it generally shares in the physiological involution of the uterus which then occurs. Such tumours are most frequently multiple. On the other hand, the soft myo-fibroma, which is usually single, is

[1] *Clinical Lectures on Diseases of Women*, 3rd edition, 1886.

much more vascular; the vessels penetrate the tumour itself, as well as ramifying in the capsule, and give a pinkish colour to this variety of tumour. Associated with this increased vascularity we find a more rapid growth, which appears to be independent of uterine conditions and unaffected by the menopause. It is this form which so commonly becomes larger as the functional activity of the uterus declines.

It is therefore highly necessary that the late occurrence of the menopause and the uncertain effect of that epoch on many of these tumours should be borne in mind when we are dealing with a case of myo-fibroma in a patient who considers that under normal circumstances the final cessation of menstruation should soon occur.

The mere **size of the tumour** may, under certain circumstances, afford a sufficient indication for operative interference. It is commonly ten or twelve years before a myo-fibroma reaches the size of a pregnant uterus at full term, but when the tumour extends to a point two or three inches above the umbilicus it frequently causes considerable annoyance from its bulk even apart from any definite or important pressure symptoms. A comfortable existence is scarcely possible in many of these cases, and commonly, in addition to the inconvenience of getting about and attending to the duties of life, a condition of chronic invalidism is induced by repeated hemorrhages and more or less constant pain. In the more wealthy classes a sufficiently tolerable existence may be dragged out on a sofa, but in others where a necessary wage-earning capacity is seriously interfered with the risk of operation is generally considered preferable. In single women, too, much mental distress may be caused by the comments evoked by the prominence of the abdomen, and the unjust suspicions to which they are subjected may induce them to seek the relief which removal of the tumour affords.

Hemorrhage is one of the commonest symptoms of myo-fibromata, and is also one of the most important indications for operation on account of the insidious way in which the patient's health and strength are gradually undermined by its repetition. It is, however, quite remarkable how easily a

woman recovers from a very considerable loss of blood, though occurring again and again, and therefore we must not be led to advise operation simply because there is a severe menorrhagia.

Profuse menstrual hemorrhage occurs in about 50 per cent. of cases of myo-fibromata. It is associated with all forms of these tumours—the large and small, hard and soft, sub-peritoneal, interstitial and sub-mucous—though doubtless it is more common and more severe as the tumour approaches the uterine mucosa.

The size of the tumour is not necessarily indicative of the amount of blood lost. At first the "periods" occur at regular intervals, but the flow is excessive, and later on with the growth of the tumour the flow is of longer duration, the amount lost is increased, and the intervals between the periods are shortened. Definite "floodings" may also occur. In the early days the patient fully recovers in the intervals the effects of the excessive flow at the periods, but with the progress of the disease she becomes increasingly anæmic and utterly prostrate.

Recognising the very severe effects of prolonged hemorrhage, we have to decide when operation is required in these cases.

In minor degrees of hemorrhage ergot and chloride of calcium are of service, and packing the vagina will generally effectually stop the flow and so conserve the patient's strength.

The blood comes from the increased surface of the endometrium (for the uterine cavity is enlarged), but hemorrhage is also favoured by the endometritis which so commonly accompanies the growth of the tumour. This perhaps explains the highly satisfactory relief which is afforded by curettage, though this operation is impracticable in cases where there is much displacement and the uterine canal tortuous. In the performance of curettage the strictest antiseptic precautions are necessary, or necrotic changes in the tumour may result and lead to a fatal septicæmia.

Some of these less severe measures are more valuable than is generally supposed, but where they have failed and the

patient is steadily losing ground there should be no hesitancy in resorting to a radical operation. This should be advised when the patient ceases to regain in the intervals the loss of strength incidental to the excessive flow at the periods. As soon as we are convinced of this fact operation should be undertaken. Delay means further prostration, and jeopardises the successful result of removal of the tumour.

The occurrence of **pain** as an indication for operation presents some difficulty. Most fibroids give rise to a sense of dragging and some tenesmus, and these are increased at the menstrual epoch owing to an exaggeration of the vascular engorgement which normally takes place at that period. But even severe and persistent dysmenorrhœa must be accepted with great caution as a plea for radical cure, for the degree of pain is difficult to gauge and is apt to be unduly emphasised in neurotic subjects.

It is somewhat different, however, with a persistent inter-menstrual pain. This is often associated with pressure symptoms in the pelvis, or with degenerative changes in the tumour which will presently be considered.

A diseased condition of the ovaries and tubes frequently coexists with myo-fibromata. Pelvic peritonitis, resulting in the fixation of ovaries and tubes in the pelvis, with hydrosalpinx or pyosalpinx, may occasion attacks of pain, or the pain may be due to dragging on the adhesions so produced.

At all events, the development of pain in a case which has hitherto caused no trouble, or any marked increase of pain, requires serious consideration, and where pain of a more or less persistent character is so distressing as to produce a condition of chronic invalidism in spite of sedatives, rest and massage, a radical operation is indicated.

A **rapid enlargement** of the tumour, especially if associated with pain, may almost certainly be regarded as demanding operative treatment. Such symptoms are generally indicative of serious degenerative changes in the tumour itself. Of these there are many, but they can only be briefly referred to here. There are true cysts formed by glandular elements within the tumour, and lined by columnar epithelium; cysts produced

by dilatation of the systemic or lymphatic vessels, and lined by endothelium; pseudo-cysts resulting from hemorrhages, suppuration, myxomatous and other changes, and not lined by epithelium; true degenerations, such as fatty, calcareous, and myxomatous degenerations, suppuration and gangrene; and transition into other forms of growth, as sarcoma and carcinoma. I have certainly seen myo-fibromata associated with malignant disease some four or five times in as many years, so it cannot be regarded as of so infrequent occurrence as was at one time supposed. Elevation of temperature and other constitutional disturbance sometimes occur with the rapid increase in size of the tumour, and in cases associated with suppuration or sloughing the patient may exhibit all the phenomena of a severe sapræmia.

The enumeration of these various forms of degeneration will serve to emphasise the importance of rapid growth of the tumour as an indication for prompt radical treatment.

Practically it may be said that operative interference is required if examination at intervals of three months shows a myo-fibroma to be rapidly increasing in size, and that it has reached nearly up to the level of the umbilicus.

The discomfort and chronic invalidism produced by large myo-fibromata are partly dependent upon the **pressure effects** due to the presence of a tumour occupying so much space. As a consequence the intestines, stomach, liver, and diaphragm are pushed upwards, and considerable interference with circulation and digestion occurs. Flatulence is often very distressing. In other cases pressure upon the ureters results in hydronephrosis or other changes in the kidney, and pressure on the bladder causes frequent micturition or perhaps cystitis. The necessity for removal in these large tumours has already been considered.

Even worse pressure effects are produced by smaller tumours incarcerated in the pelvis and prevented from expansion upwards by the sacral prominence. Pressure on the urethra may cause complete retention, and the use of the catheter may be necessary. Severe pain arises from pressure on nerves causing a false sciatica, and in all cases of obscure pain in the region supplied by the sacral nerves the pelvis

should always be carefully examined. Pressure on the ovaries, especially if prolapsed, causes a pain of a sickening character, and results in those pathological conditions of the ovaries and tubes which so often accompany myo-fibromata and to which reference has been made. Pressure on the rectum causes piles and severe constipation, amounting in some cases to a definite obstruction, though it is remarkable how great a degree of pressure the rectum will tolerate without causing urgent symptoms.

In many of these cases the tumour can be displaced above the pelvic brim, with consequent relief of symptoms, much in the same way as a retroverted gravid uterus can be rectified; but great care must be exercised in the manipulation, lest an undue traumatism may cause tearing of adhesions or degenerative changes of a serious nature in the tumour itself. If rectification is impossible or undesirable a radical operation should be undertaken without delay, but it is highly desirable that we should not wait for the development of urgent symptoms when we have ascertained that there is a growing tumour choking the pelvis. These incarcerated tumours become moulded to the pelvis and present some operative difficulty, and hence the need for prompt relief in the early stage of a tumour confined to the pelvis in its development.

Owing to the presence of endometritis or a diseased condition of the ovaries and tubes, which so commonly accompany myo-fibromata, sterility is fortunately common. The coexistence of **pregnancy** with uterine myo-fibroma is a serious condition, but bearing in mind that two lives are involved, it appears unjustifiable to adopt radical measures unless the symptoms are urgent.

Before the child is viable operation may be required because of excessive pain or rapid growth, as in non-pregnant cases. It is worth remembering that in some of these cases the myo-fibroma may be shelled out without interfering with the normal course of pregnancy. So, too, when the tumour occupies such a position that delivery cannot be effected *per vias naturales* operation must be undertaken, though some pelvic tumours with a long pedicle can be displaced upwards into the abdomen,

where they no longer menace the safe continuation of pregnancy and delivery.

If, however, the patient has gone almost to full term with a myo-fibroma which would, if left, require removal at a subsequent operation, it is better to effect delivery of the child by Cæsarean section, and then proceed to the removal of the myo-fibromatous uterus.

These, then, are the various considerations which should guide us in the selection of cases for operation. If we decide on operation, the best time is about a week before the expected "period," but in all cases it is desirable that the patient should be brought into the best possible condition before any operation is undertaken.

Myomectomy is the operation of choice in young women, provided that the general condition is fairly satisfactory, that the tumour does not extend much above the umbilicus, and that there are no important complications such as severe inflammatory disease of the tubes and ovaries or advanced anæmia.

Within proper limits this operation of shelling out the tumour should always be adopted, as by this means the functional activity of the uterus is unimpaired.

In cases where myomectomy is undesirable I prefer the operation of retro-peritoneal hystero-myomectomy rather than the so-called pan-hystero-myomectomy. When the myo-fibroma is associated with malignant disease nothing short of the removal of the whole uterus and tumour would be advisable, whereas in ordinary uncomplicated cases of hystero-myomectomy there is no *primâ facie* reason for the removal of any more of the uterus and tumour than is included in the supra-vaginal operation of retro-peritoneal hystero-myomectomy; but though we may regard the last-mentioned operation as the method of election, it would be foolish to insist on a slavish adherence to it under all circumstances.

These various procedures are of such severity, that they should not be undertaken if any grave organic mischief in other organs coexists. Advanced disease of the heart, lungs, or kidneys should certainly be regarded as contra-indications to operation.

ETHYL CHLORIDE: A FEW PRACTICAL REMARKS.

BY

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WHEN considering the use of ethyl chloride as a general anæsthetic one cannot help feeling surprised that the profession has not before this decided more definitely as to the safety and utility of the drug. But an explanation may probably be found in the great variety of methods used for its administration; for although it *may* be given by means of almost any of the ordinary anæsthetic apparatus, yet there is probably no anæsthetic which, for success, depends upon the way in which it is given so markedly as does ethyl chloride. From a practical point of view the most important points for consideration are: the apparatus, the method of administration, the choice of suitable cases, and the clinical and physiological signs of overdose.

Apparatus.—This may be dismissed in a very few words; for although many special inventions have been introduced, still a quite efficient inhaler exists in a Clover's face-piece and bag, connected together without the ether chamber. If different forms of inhalers are tested systematically, and the results compared, it will be found that the advantage, especially in the direction of economy, will lie with one of the forms in which the ethyl is sprayed on to lint, provided that the lint is renewed frequently and not allowed to become sodden and frozen.

Administration.—This is important. Faulty administration is the commonest cause of struggling, and of what may be termed an uncomfortable anæsthesia. Overdosing and mechanical obstruction to the breathing, such as is caused by the falling back of the tongue, and careless selection of subjects, are the chief sources of danger to the patient. It must be borne in mind that whereas nitrous oxide may be given

without oxygen, this does not obtain in the case of ethyl chloride, which should always have a certain proportion of oxygen given with it; and this may be effected by commencing with the bag empty and the apparatus charged with the required dose of the drug, the patient being made to expire the first four or five breaths into the bag before the final close application of the face-piece. At the same time, by gradually approximating the apparatus to the face, these four or five inspirations may be used for the insidious introduction of the vapour to the patient. The bag will now contain vaporised ethyl chloride and the air of four or five expirations, or, in other words, ethyl chloride vapour mixed with sufficient oxygen for sixteen or twenty respirations, and, as Vernon Harcourt puts it, the patient will be subjected to an atmosphere of the drug rather than to a stream of it. The management of these first four or five breaths is important, and if skilfully carried out will obviate to a great extent any tendency to general struggling or to spasm of the glottis. The admixture of oxygen undoubtedly diminishes the frequency of vomiting. The most reliable signs of anæsthesia are stertorous breathing and rotation downward (or upward), with fixation, of the eyeballs. The stertor is soft, and, in order that he may hear it easily, the anæsthetist must insist on silence being maintained in the theatre. The dose should be as small as possible, and should be very carefully measured by means of the graduated scale on the tube. For patients under 6 years 1 cm. generally suffices; between 6 years and 12 years, 2 cm.; between 12 years and 18 years, 3 cm.; for adults and muscular subjects, 4 cm.; for known strugglers 6 cm. may be used. It is well to remember that after removal of the inhaler narcosis continues to deepen for a few seconds. As is the case with chloroform, the effect of an overdose is aggravated by any interference with the supply of oxygen, and a dose which would otherwise be safe becomes dangerous in the presence of obstructed breathing. For this reason the use of ethyl chloride in operations upon adenoids and tonsils is to be considered safe only when the surgeon will allow the pharynx to be kept sufficiently clear to permit of practically uninterrupted breathing. An under-

standing to this effect should exist between the surgeon and the anæsthetist. Every patient should be prepared as regards the viscera and the loosening of clothes. Prolonged anæsthesia often gives rise to headache in adults, but is free from unpleasant symptoms in children. Repeated administrations are not to be entertained except after intervals of at least half an hour. Swallowing must be avoided as much as possible.

The Choice of Suitable Cases.—Most people seem to be able to take this anæsthetic; and some, such as young children, very feeble persons, stout or emphysematous subjects, undoubtedly take it better than they take ordinary gas. The writer has administered it, without noticing any ill effects, to patients suffering from exophthalmic goître, chronic nephritis, diabetes, epilepsy, mitral regurgitation (without loss of compensation), and retroverted gravid uterus. As an "introducer" for ether or chloroform it is excellent. Bad subjects are found in hysterical women, habitual drinkers, and heavy smokers. As regards the subjects of diabetes or exophthalmic goitre, they should not be anæsthetised except when absolutely necessary.

Overdose.—Both the immediate and the after-effects of overdose are greatly increased by any interference with the supply of oxygen. In a severe case the patient becomes pale, with widely-dilated pupils, absence of respiratory movements, complete flaccidity of limbs, and has no perceptible radial pulse. Artificial respiration is followed by recovery within a very short time. The after-effects of too much ethyl chloride and too little air are headache, persistent suffusion of the conjunctivæ, pallor, vomiting, abdominal pain, weakness, and a feeling of wretchedness. These symptoms, or some of them, may last for many hours. By a careful regard to the dose used and to the freedom of respiration, accidents and undesirable symptoms seem to be avoidable. The few deaths which have occurred (four have been reported) have been in subjects who were not fit for any anæsthetic, *e.g.* a baby with laryngeal diphtheria, an adult with advanced valvular disease of the heart, &c.

The writer has examined the blood from cases of overdose in

human beings, and from cats which have been poisoned with the drug. A curious phenomenon was obtained in nearly every case. The spectroscope showed absorption bands resembling those of carbon monoxide, and reduction upon the addition of ammonium sulphide was delayed and in some cases difficult to obtain, although there was no instance in which reduction was not possible. As to the phenomena occurring in the dendrites of the brain cells, little use can be made of evidence derived from animals which have been killed by the drug, and vivisection laws will not permit the examination of the brain in the various stages of narcosis; but in cats which were killed with ethyl chloride the dendrites were varicose, and had in many instances lost their gemmules.

[I am indebted to Mr. D. Hughes, M.P.S., of Messrs. Buxton & Co., for help in the examination of the blood.]

THE INDUCTION OF GENERAL ANÆSTHESIA BY INTRA-SPINAL INJECTIONS OF COCAINE.

BY

ALFRED S. GUBB, M.D. Paris, M.R.C.S., &c.,

Of Algiers and Aix-les-Bains.

IT was my privilege last winter at Algiers to demonstrate to some surgical friends at the Civil Hospital at Mustapha the advantages attending the administration of chloroform by a regulating inhaler, such as that manufactured by Krohne and Sesemann. This apparatus was greatly admired, and has since been adopted in at least one surgical service. In return I was initiated into the mode of inducing general anæsthesia by the injection of small doses of cocaine into the spinal canal. In common with all readers of medical literature I was familiar with the technique, but had never been afforded an opportunity of seeing it put into practice.

Just as the surgeons of fifty years ago squirmed at the idea of tampering with the peritoneum, so the average man to-day

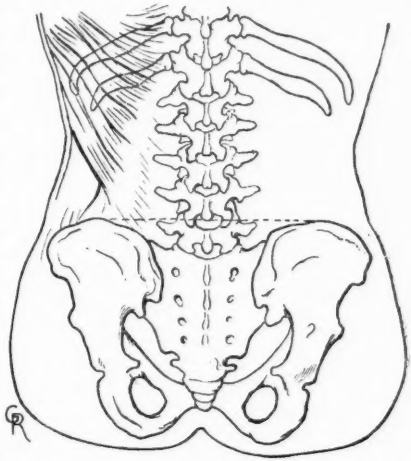
falters when confronted with the suggestion to plunge his sacrilegious needle into the depths of the spinal canal. I must confess, not being a "pure" surgeon, that the sight of the cerebro-spinal fluid trickling away through the needle excited an uncomfortable feeling of responsibility. This, however, soon yielded to the influence of familiarity, but it is not the only "surgical shock" that awaits the tyro in intra-spinal cocainisation. It requires a courage begotten of confidence to set about an amputation through the thigh or an abdominal section with the patient looking on, his face testifying to curiosity not unmixed with apprehension, tempered by surprise, at the absence of sensation. This, however, is, after all, only a matter of habit; but these two factors explain, perhaps, why this method of obtaining surgical anæsthesia has not become popular in Great Britain. I mean that no one who has not seen it performed repeatedly, and has thus convinced himself of its safety and of the ease with which it can be done, is ever likely to try the experiment. Until English surgeons of eminence demonstrate its innocuousness and practicability to their students, the latter will assuredly continue to regard intra-spinal cocainisation as a foreign fad unsuitable for adoption by conscientious practitioners.

It was in the service of Dr. Vincent, surgeon to the Civil Hospital at Mustapha, that I acquired most of my experience of cocaine anæsthesia. This distinguished surgeon has now operated upwards of three hundred times under anæsthesia induced by this means, and the only mishap was due to pure carelessness on the part of an assistant, who, having dropped the sterilised needle on the ground, allowed it to be made use of without flaming it *de novo*. Obviously the operation is one that must be performed under strict antiseptic precautions; indeed, failure to secure perfect asepsis is the only risk that attends an otherwise extremely convenient procedure.

The skin over the lumbo-sacral region is sterilised in ordinary surgical fashion some hours before the operation, and kept covered by a compress steeped in some antiseptic solution. He is directed to sit on the operating table with his back to the operator, his arms before him, and the trunk

inclined forwards in order to afford as much room as possible for the needle to pass.

The skin is again carefully scrubbed with a solution of sublimate, and the surgeon selects a spot about half an inch to one or other side of the spinous processes, on a line drawn between the two iliac crests, corresponding to the interval between the fourth and fifth lumbar, or the last lumbar and first sacral, vertebræ. The iridio-platinum needle, some three inches long, previously sterilised in the flame of a spirit-lamp, is then introduced in a direction from below slightly upwards and inwards to a depth of about two inches. As a rule it is easy enough to strike the space, but should the point of the needle catch, it is withdrawn a little and the direction slightly altered. This having been satisfactorily accomplished, the syringe is disconnected, and the cerebro-spinal fluid trickles away. The flow ceases when a couple of drachms or so have escaped, and the last step is to inject one cubic centimetre of a sterilised solution of cocaine containing two centigrammes



(a third of a grain) of the alkaloid. In four or five minutes sensation will have disappeared up to the level of the nipples, or, in children, even higher. I may add that this tendency to too widespread effects in the young is regarded as a contra-indication to its employment in children. The patient is then ready to undergo the operation.

The anæsthesia obtained has invariably been complete for surgical purposes, though, curiously enough, pressure and traction still produce discomfort, if not pain. For instance, I have seen patients wince when an Esmarch's bandage was applied to the thigh, although neither cutting nor sawing gave rise to any manifestation of suffering. Similarly, in abdominal operations, traction on an organ is sometimes resented by the patient; but, so far as I could judge, it was apprehension rather than pain that was excited.

In about half the cases there was some sickness, usually trifling in amount; and in any case sickness in a conscious patient is of no moment. Headache is also complained of, but only exceptionally is it severe or prolonged. The pulse remains calm, and respiration is unaffected.

I have seen numerous amputations of the lower limbs, ovariotomies, operations for the relief of strangulated hernia or for the radical cure, operations for hydatid cysts of the liver and other viscera, removal of tumours of the pancreas, &c., performed with comfort under cocaine anæsthesia. Surgical shock is conspicuous by its absence, and very often the patient, smiling when told that it was all over, asked to be given a good meal or a cigarette on leaving the theatre.

I began my own education in the *post-mortem* room, and I experienced very little difficulty in locating the proper spot. Since then I have injected the human subject a number of times, and although I have once or twice had to feel my way into the spinal canal, so to speak, I have invariably accomplished my object. The whole process takes about two minutes, and no after-care of the patient is required.

It is impossible not to be impressed by the simplicity of the method, and by the absence of struggling, violent sickness necessitating suspension of the operation, and of post-operative

depression. The pain of the puncture is almost *nil*, given the insensitiveness of the dorsal skin; moreover, in nervous patients, even this trifling discomfort can be obviated by the application of chloride of ethyl. I may add that I have seen it employed during labour in preference to chloroform, so far as I am aware, without any untoward effect, although labour was thereby rendered absolutely painless.

ON SURGICAL ANALGESIA BY SPINAL COCAINISATION.[1]

BY

WILLIAM JONES GREER, F.R.C.S.I., D.P.H.I.

THIS method of producing surgical analgesia though not generally known in England is very largely practised on the Continent. The honour of discovering it rests with Corning[2] of New York, Bier[3] of Kiel first brought it under general notice, and Tuffier[4] of the Beaujon Hospital, Paris, has established the technique on a sound basis. I recently had the honour of witnessing M. Tuffier operating under the method. It is certainly a most interesting sight to watch such an operation as that for the radical cure of hernia on a patient fully conscious, and who can assist the surgeon when asked to do so; that is to say, suppose in a case of this kind that the sac is difficult to find, the patient is directed to cough, down comes the gut and the sac is easily traced. As regards pain, there certainly cannot be any, nor does the patient exhibit the least sign of uneasiness.

Now to English operators it may appear somewhat disconcerting to have a patient, so to speak, watching himself being operated upon; still, the patient cannot very well see the operation, and he is not very likely to try, yet he can surely hear the conversation of the surgeon and his assistants and nurses.

[1] A paper read before the Monmouthshire Division of the British Medical Association, at Abergavenny, February 26th, 1904.

[2] *N. York M. J.*, 1885, xlii. 483. [3] *Wien. med. Bl.*, Aug. 17th, 1899.

[4] *L'Analgésie Chirugicale par Voie Rachidienne*, 1901.

Coming to the technique, this, to those who are acquainted with a rigid aseptic ritual, will appear simple. The patient is placed in a sitting position by preference, leaning somewhat forward, the skin of the back is very carefully prepared for about twenty minutes, then an assistant on each side indicates the highest points of the iliac crests, the operator draws an imaginary line between these points, this line crosses the back between fourth and fifth lumbar spines; at[1] a point on this line 1 cm. from the middle line, a needle is thrust forward and very slightly upwards for a distance of about 5 to 7 cm. It passes through the skin, lumbar muscles, ligamentum subflavum between the laminæ to dura and subarachnoid space. The absolute proof that the point of the needle is in the subarachnoid space is the escape of cerebro-spinal fluid, this comes away drop by drop and has the usual characteristics in a normal case.

The syringe charged with one centigramme of cocaine hydrochlorate dissolved in twenty drops of an isotonic fluid[2] is then attached to the needle already in position, the piston is withdrawn, and a few drops of cerebro-spinal fluid are drawn into the syringe to mix with the cocaine solution, then the mixture is injected into the subarachnoid space slowly. The needle is withdrawn and the puncture is sealed with collodion and a dressing applied. In about fifteen minutes the analgesia will have taken place. In such extra-peritoneal operations as those on the lower limb, the hip, perineum, anus, rectum, vagina, uterus, testicle, prostate, bladder, ureter, kidney, the operator can act with the greatest security.[3] For intra-peritoneal operations the method is not so satisfactory, as sickness is likely to interfere with the manipulations. Tuffier holds that with his technique the duration of the analgesia is sufficient for any operation whatever it may be.

The phenomena which appear during the course of the analgesia are tinglings, prickings, numbness of the feet and

[1] The fifth, Tuffier, Stiles, Kocher; between fourth and fifth, nearer fifth, Prof. Hepburn.

[2] This cocaine solution in sealed "ampoules" can be obtained from M. Robert, Pharmacien, rue de Bourgogne, Paris.

[3] Tuffier.

limbs. The patient speaks of a sensation of weight in the chest and stomach. There is some anxiety and also nausea. Occasionally there may be vomiting; this latter I observed in one of the patients, but it was certainly very little, and not as much as one may see under ether or chloroform anæsthesia. During the nausea the patient is pale and may have profuse sweats. The pulse is ordinarily accelerated. I examined it frequently during the operation, and I formed the opinion that this acceleration was not due to any of the steps of the operative procedure. After the analgesia has passed off headache is an almost constant symptom; generally it is very light and disappears the following day, but it may be severe and produce insomnia which may last for forty-eight hours. There is frequently a rise of temperature in the evening of the day of operation, 38-39 C. (100-103 F.). This usually drops to normal the next day.

A point of great interest to surgeons who intend to use this method of analgesia is the observation of Kocher[1] and of Cushing,[2] that under rachi-cocainisation the wound took an unfavourable course. With some hesitation I venture to suggest that this observation is open to criticism on the lines of defect in wound technique, at any rate I have not been able to confirm it. Perhaps it will be a sufficient reply to say that M. Tuffier[3] informs me that he has carried out spinal cocainisation about two thousand times. Now the service of this distinguished surgeon is a model of asepticism, and he is not likely to adhere to a method which would produce septic wounds.

Amongst others who use the method, Villar[4] of Bordeaux records 39 cases without accident. Guinard[5] of Paris gives 50 cases also without accident. Monzon[6] of Saragossa notes 152 cases with one death on the table, due, he thinks, to a very enfeebled condition consequent on a tumour of the liver producing pyloric stenosis.

[1] Kocher, *Operative Surgery*, 1903.
[2] *Ibid.* [3] Personal communication.
[4] Congrès Français de Chirurgie, 1901.
[5] *Ibid.* [6] International Medical Congress (Madrid), 1903.

With regard to how the cocaine acts, Lenandowsky,[1] who believes that the cerebro-spinal fluid is a product of the brain and partakes of the nature of lymph, holds that the cocaine passes directly into the nerve substance through its lymph channels without the intervention of the circulation. Nicolletti[2] of Naples in an experimental research declares that cocaine in contact with nervous elements does not produce any anatomical change; he holds that it first causes a vaso-constriction to which soon succeeds a vaso-dilatation. During these changes the nerve elements suffer in their nutrition, alteration of function occurs, and amongst other things anæsthesia.

Now in examining any new method of procedure in our work it is essential to take a judicial view of both sides of a question. Here I propose to bring before you the fact that disasters have occurred under rachicocainisation. Dumont[3] reports a death, and Kocher[4] records a death from tuberculous meningitis following an injection. Reclus[5] records eight deaths out of a total of 2,000, a high mortality certainly, but these figures are all from the period which immediately followed the initiation of the method. I venture to believe that more recent records will show a rapidly diminishing roll of fatalities. At any rate these calamities demand very careful attention; they most surely insist that a surgeon who undertakes the process shall render himself thoroughly acquainted with that technique which has the least or no mortality.

One thing is, I think, clear, that is that any surgeon who is competent to operate at all is competent to carry out spinal cocainisation; to such a one the details of the aseptic ceremonial are second nature, he will exercise the minutest care in preparing the patient's skin, he will ensure the sterility of his needle and syringe, he will use a sterilised solution of cocaine, and will see that his hands are as sterile as he can get them, and that these are encased in sterile gloves. Without such precautions it is folly to undertake this method; the operator must remember that if

[1] *Ann. Surg.*, 1900, xxxii. 851.
[2] Congrès internationale de Médecine, 1900.
[3] Kocher, *Op. cit.* [4] *Ibid.* [5] *N. York M. J.*, 1901, lxxiii., 1055.

he introduces the least septic material into the subarachnoid space his patient is doomed.

In conclusion, I would draw your attention to a remarkable statement of M. Ravaut.[1] He found that the injection of pure sterilised water alone into the subarachnoid space produced all the bad symptoms of the usual cocaine method, that is a rachi-cocainisation without cocaine. The inference from this is, of course, that the cocaine must be dissolved in a fluid as similar in composition to that of cerebro-spinal fluid, and that subject to this and the other conditions laid down the method is innocuous. Tuffier thinks that it is well not to use the procedure in either infants or hysterical people. Cardiac disease or arterio-sclerosis is not any contra-indication. I have not attempted to define the place of rachi-cocainisation in anæsthesis, as Time will unveil to the light of reason that Truth is more our friend than either Plato or Socrates.

THE RELATIONSHIP OF CHOREA AND RHEUMATISM.

BY

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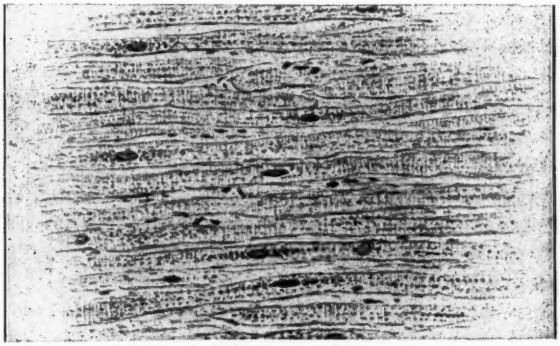
For many years past the relation of chorea and rheumatism has formed an interesting subject for discussion, and as the opportunities of making a *post-mortem* examination and a subsequent microscopical and bacteriological investigation are fortunately uncommon, the following case may be of interest.

A girl, C. A., æt. 14, was admitted into the Infirmary under Dr. Shingleton Smith, on May 5th, 1903, with marked general choreiform movements. The only previous illnesses were measles and whooping cough some years before, and she was apparently in good health until four days before admission.

[1] Quoted by Guinard, *Cong. Fran. de Chir.*, 1901.

Nothing noteworthy beyond the typical jactitations was found, as on examination the heart and lungs appeared to be normal. She gradually became worse and had to be removed to an isolation ward on May 10th, on account of her excitable condition. The temperature, which was 99° F. on admission, became of the intermittent type, rising to about 101° F. most evenings and falling practically to the normal in the mornings. This state continued for twelve days, and on May 22nd, after a meal of milk, she had marked dyspnœa and other signs of tracheal obstruction. Tracheotomy was performed, and she was temporarily relieved after a quantity of milk had exuded from the wound. Broncho-pneumonia, however, soon developed. The temperature rose the same evening to 104° F., and continued high until death on May 25th, two days afterwards.

Autopsy (about thirty hours after death).—The brain appeared to be normal. There were no signs of meningitis and no embolism, thrombus, nor hemorrhage could be discovered. The pericardium was healthy and the heart was rather larger than normal, weighing 9 oz. The mitral orifice was somewhat dilated, and the valve showed the usual appearances one sees in fatal cases of acute rheumatic endocarditis. Studded around the auricular surface close to the free edge were minute pedunculated vegetations forming a string of small pink beads. The heart muscle seemed healthy to the naked eye. The only other lesions discoverable were pleurisy at the right base and patches of broncho-pneumonia scattered throughout the right lung. This was the probable cause of death, and was evidently due to particles of inhaled food, some of which were found in the smaller bronchi.



Microscopical Appearance of Heart Muscle.

Microscopical Examination.—No further examination was made of the brain. Dr. Fisher examined sections of the heart muscle stained with Sudan iii. and hæmatoxylin, and the above illustration, which he has kindly lent me, is from one

of these. He describes it[1] "as although in none the degeneration was extreme, every fibre in all the sections examined was dotted throughout with small granules of fat, the distribution being for the most part uniform, except that in many fibres the fat granules were most numerous in the neighbourhood of the ends of the muscle nuclei."

Bacteriological Examination.—Streak cultures upon Kanthack's medium were made from the inner surface of the pia-mater, the brain substance, the heart muscle, and the surface of the cardiac vegetations. On incubating the cultures from the pia-mater and brain, in twenty-four hours minute, discrete, clear, colourless round colonies appeared. These gradually coalesced, and in another forty-eight hours formed a thin greyish film on the surface of the medium. On examination of this growth it was found to consist entirely of small round diplococci tending to arrange themselves in chains, and staining well with ordinary reagents and with Gram's solution. Several broth tubes were at different times inoculated with the growth, but no change could be discovered after three days' incubation, and no diplococci could be found on microscopical examination. The original growth also soon died, and in about a week the film began to shrivel up and become opaque. The culture from the heart muscle gave negative results, but the one from the surface of the cardiac vegetations gave a copious growth of staphylococcus associated with a few colonies of a diplococcus similar in every respect to those found in the brain. Microscopical sections were also made through the diseased valve, and these, when stained by Gram's method, showed a few diplococci similar in appearance to those described above.

Remarks.—Briefly summarising the case, we have here a young girl, with no history of acute rheumatism, having chorea in a severe form, and showing *post-mortem* cardiac dilatation and mitral vegetations similar to those found in acute rheumatism. Also cultures made from the brain substance and pia-mater gave a pure growth of a diplococcus similar in most respects to Poynton and Paine's "rheumatic diplo-streptococcus."

As long ago as 1863 Kirkes expressed the opinion that chorea was due to cerebral irritation caused by separation of particles of vegetations of the mitral valves similar to those found in rheumatic fever, but a direct connection between rheumatism and chorea, I believe, was not suggested until 1894, when Sir Dyce Duckworth read a paper at the International Congress of Medicine at Rome[2] in support of the statement

[1] *Brit. M. J.*, 1903, ii. 452.

[2] *Atti d. xi. Cong. Med. Internaz.* (Rome), 1894, iii., Med. inter., p. 354.

that chorea was cerebral rheumatism. Since that time there has been a large amount of clinical and pathological evidence bearing on the subject. The frequent association of the two diseases in the same patient (60 per cent. of 115 cases recorded by Batten[1]), and the similarity of the cardiac and skin conditions, indicate very strongly that in many cases at least chorea is of rheumatic origin. *Post-mortem* evidence is naturally rather scanty, as cases of chorea seldom die; but such as it is, it points in the same direction. Various cerebral lesions have been described, such as multiple emboli (Kirkes) and minute hemorrhage and perivenous round-celled infiltration,[2] and these are suggestive at least of an infection such as rheumatic fever is now supposed to be. The condition of the heart is more conclusive. In the seventy-three autopsies collected by Osler[3] sixty-two had endocarditis, and most of these were of the simple variety only commonly seen otherwise in cases of rheumatic fever, and in the above case the minute vegetations on the mitral valves were typical of rheumatic endocarditis. Cheadle[4] goes so far as to say "that the endocarditis . . . of chorea" is "invariably rheumatic in nature and origin," and this appears to be the probable right conclusion.

As far as the bacteriology of chorea is concerned, ever since Mantle, at the British Medical Association in 1887,[5] propounded the idea that rheumatic fever is a bacteriological disease a large amount of work has been done. Various organisms (bacilli, staphylococci, streptococci, &c.) have been found both in rheumatic fever and chorea, and have been credited with the causation of the disease. The interest at present, however, centres round a diplococcus, or, as it is sometimes called, a diplo-streptococcus from its tendency to grow in chains. Dana in 1894[6] was the first to describe a diplococcus in a case of chorea following rheumatism, and since then a somewhat similar organism has been found in the blood, heart, and capsules of

[1] *Brit. M. J.*, 1903, ii. 450. [2] Reichardt, *Med. News*, 1902, p.
[3] Osler *Chorea and Choreiform Affections*, 1894.
[4] Allbutt's *System of Medicine*, vol. iii., 1897, p. 51.
[5] *Brit. M. J.*, 1887, i. 1381. [6] *Am. J. M. Sc.*, 1894, cvii. 31.

joints in rheumatic fever by Goldsheider, Michaelis, Litter, Wasserman, Triboulet, Coyon, Meyer, and others. Poynton and Paine have thoroughly investigated the subject, and a study of their recent publications[1] seems to make it pretty clear that a diplococcus is the causal factor in rheumatic fever. The evidence that chorea is produced by the diplococcus is, however, by no means so conclusive, as comparatively little work has been done. However, since Dana's experiment, Apert and Wasserman have found diplococci in the brain in fatal cases of chorea, and Poynton and Paine were able to find them in sections of a brain from a patient with chorea three years after death. These last observers also have produced choreiform movements in rabbits by injection of pure cultures of the diplococcus obtained from a case of acute rheumatism,[2] and more recently[3] Beattie has performed a similar experiment with a like result. Hence it may be said that bacteriological evidence, as far as it goes, strongly supports the idea that chorea is rheumatic in origin, and the presence of a diplococcus in the brain in the above case is some additional confirmatory evidence of this.

HÆMATEMESIS ASSOCIATED WITH SMALL WHITE KIDNEYS.

BY

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INSTANCES of bleeding from the stomach unassociated with gross lesions of the gastric mucous membrane are always interesting, and often difficult of explanation. In the following cases 'small white kidneys' were found after death where there had been a history of hæmatemesis during life, and although the connection between this form of nephritis and hæmorrhage

[1] *Lancet*, 1900, ii. 861, 932. [2] *Tr. Path. Soc. Lond.*, 1901, lii. 248.
[3] *J. Path. and Bacteriol.*, 1904, ix. 276.

from the stomach may not be clear, the association is at least worthy of note.

Case 1.—Matilda F., aged 37, was admitted to the Bristol Royal Infirmary under the care of Dr. Prowse, October 29th, 1895, with a history of having, five weeks before, vomited blood, and on several occasions after that time. There was occasional diarrhœa. Five years before she had had scarlet fever, but there was no history of dropsy following. She died four days later.

On admission the patient was very drowsy, and an erythematous, patchy rash was present over the greater part of the body. The sp. gr. of the urine was 1015; .02 per cent. of albumin was present.

In the *post-mortem* room the fact that no œdema of the legs was present was noted. A careful search was made for the source of the hæmatemesis, but none could be found in either the stomach or the œsophagus. The liver was healthy; the heart weighed 7 oz., and presented nothing abnormal. The kidneys were both very small, the right weighed 2¾ oz. and the left 2½ oz.; they were granular, pale, and had the speckled appearance due to opaque yellowish-white spots dotting a slightly darker and more transparent surface which is frequently seen in small white kidneys; the capsule also, as is not uncommonly the case, peeled without tearing the kidney substance; the cortex was much diminished, and in places had almost disappeared.

Case 2.—Caroline H., aged 45, was admitted into the Bristol Royal Infirmary, under the care of Dr. Prowse, July 7th, 1897. She was said to have enjoyed good health until four years before, when she had her first attack of bad dyspepsia. Shortly before admission it had returned, and on the day of admission she vomited about "half a gallon of blood."

On admission she was described as anæmic. The urine was said to contain no albumin; the sp. gr. was 1015. On July 13th, six days later, blood was passed per rectum, in quantity described as a "considerable hæmorrhage." She died July 27th. There was slight pyrexia during the time she was in the Infirmary.

At the necropsy "careful examination of the stomach failed to reveal anything that could account for the hæmatemesis. There was a doubtful scar of an old ulcer, but the mucous membrane of the stomach seemed remarkably healthy. The œsophagus showed nothing that could account for the hæmorrhage; the veins were unusually small. The duodenum was also healthy, as was the whole length of the small and large intestine." The liver showed no trace of cirrhosis, but was pale and apparently slightly fatty. The kidneys were of the 'small white' variety; the right weighed 2½ oz., the left 2 oz.; the cortex of each was much diminished, and the capsule peeled badly.

As in the preceding case, the heart was not enlarged it weighed 7 oz.

Case 3.—Amelia D., aged 46, was admitted into the Bristol Royal Infirmary, under the care of Dr. Shingleton Smith, October 21st, 1897. She had suffered from dyspeptic symptoms for six months, and ten days before admission she vomited blood, and again nine days before. The motions at the time of the vomiting had been black.

On admission the patient was very anæmic, and was drowsy and apathetic. The notes make no mention of œdema of the legs. She died four days later. Slight pyrexia had been present.

At the autopsy nothing could be found in the stomach or œsophagus to account for the hæmatemesis. The liver was healthy. The kidneys were of the 'small white' variety; the weights were $2\frac{3}{4}$ and $2\frac{1}{2}$ oz. The heart weighed $10\frac{1}{2}$ oz.

Case 4.—W. M. C., aged 52, was admitted into the Bristol Royal Infirmary, under the care of Dr. Shaw, June 19th, 1896. He had suffered from repeated attacks of hæmatemesis shortly before admission.

At the time of admission he was very drowsy, and on the first day once vomited "coffee-ground" vomit. Two days later he died.

In the notes of the necropsy the stomach is described as "perfectly healthy, not even congested. There were no varicose veins of the œsophagus from which the blood could have come. There was no duodenal ulcer, and the intestines were healthy throughout." The liver showed no signs of cirrhosis, and the kidneys were described as small, both "very distinctly granular, but pale; the capsule peeled without tearing the kidney substance, and the peripheral cortex was much diminished." The heart weighed $8\frac{1}{2}$ oz.

The age of this patient may suggest that the kidneys were of the red granular type. Although, however, in the description of them the words 'small white kidney' are not used, it is obvious that they were considered to be examples of that form of diseased kidney, because the notes state: "As is usual with this variety of granular kidney, there was no arterio-sclerosis worth mentioning and no enlargement of the heart."

The following case is of somewhat different character. There was hæmoptysis but not hæmatemesis. The fact, however, that there was loss of blood for which no cause could be found associated with the presence of 'small white' kidneys justifies brief notes being inserted here.

Case 5.—David T., aged 20, was admitted under the care of Dr. J. E. Shaw, May 12th, 1890. He was said never to have had "a day's illness in his life" until three weeks before admission, up till which time he had assisted his father in a blacksmith's forge. He had felt languid for three weeks, and had suffered from a "bilious attack" ten days before. On the day of admission he coughed up "a quantity of blood," and during the first week he was in the Bristol Royal Infirmary there were several slight recurrences of the hæmoptysis.

At the time of admission he was a muscular young man. His urine was found to contain albumin, but there was no œdema of the legs. The urine was tested daily during his stay in the Infirmary. The amount of albumin was generally small, not more than .025 per cent., but occasionally rose to .15. The sp. gr. was generally about 1010. He grew gradually worse, became very emaciated, and for a month was covered with a patchy erythematous rash which desquamated. He died three months after admission.

At the necropsy nothing was found that could account for the hæmoptysis. The lungs were merely anæmic and the pleuræ were quite healthy, there being no evidence of even very slight tuberculous disease. The kidneys were both well-marked examples of the 'small white kidney,' but not so small as some of those in the preceding cases. Each weighed $3\frac{3}{4}$ oz. The peripheral cortex, however, had almost disappeared. The heart weighed $14\frac{1}{2}$ oz.

I have met with at least three other cases where severe bleeding from the stomach occurred shortly before death, yet I was unable to find a cause for the hæmorrhage. In one case an exploratory operation had been performed on the stomach on account of repeated hæmorrhages. She, however, died from a recurrence of the bleeding, yet no point of origin for the loss of blood could be found in the stomach or œsophagus, nor was any abnormal condition of the portal vein or liver present which would have accounted for it.

I am aware that very minute erosions of the gastric mucous membrane have been recorded in cases of fatal hæmorrhage, but feel sure that nothing of the kind was overlooked. And we know that hæmorrhages occur from the mucous surfaces in various forms of purpura where there is no reason to suppose that local lesions of the mucous membrane are present. In diphtheria also, where there had been hæmatemesis during life, I have been unable to find anything but minute circular hæmorrhages in the mucous membrane, without, however, any

abrasion of the surface such as is seen in hæmorrhagic erosions.

It has been suggested that some toxins, like a few drugs such as morphia, may be excreted by the stomach. The appearance of the stomach in the case of diphtheria was certainly suggestive of the action of some substance which affected its mucous membrane more than any other surface of the body, but, curiously enough, not the stomach only. The whole of the small intestine was free from a single spot, but petechiæ similar to those seen in the stomach were scattered through the mucous membrane of the large intestine.

Whether, however, some toxins may or may not have some deleterious influence especially upon the stomach, it is interesting to note that some poisons appear to have an affinity for the endothelium of blood-vessels, and by weakening the wall allow of extravasation of blood. Such poisons, for which Flexner has proposed the name of "hæmorrhagins,"[1] may possibly sometimes exist in cases of Bright's disease, and be the explanation of hæmorrhages such as hæmatemesis.

In conclusion, it may be remarked that although hæmatemesis is mentioned amongst the complications of Bright's disease, I have not been able to find that it has been mentioned to occur especially in cases of the 'small white' kidney. It has so happened, however, that the only form of diseased kidney which I have met with in association with hæmatemesis has been of this variety.

NOTES ON A CASE OF INFANTILISM.[2]

BY

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The child is aged 10 years. Her parents state that since four years of age she has not grown to any appreciable degree. The father and mother are both well grown and intelligent people.

[1] *Am. J. M. Sc.*, 1903, cxxvi. 206.

[2] Paper read before the Society for the Study of Disease in Children.

I have seen two sisters, who are of normal size. The child was brought under my care at the Children's Hospital because of her small size and lack of development. Her weight is 26 lbs. (average weight, about 4 st. 6 lbs.); height, 36 inches (average, 4 ft. 3 ins.); circumference of head, 18¾ ins. (average, 21½ ins.); length, 12 ins.; breadth, 10½ ins. The primary teeth are decaying. The fontanelles are closed. The child is naturally silent and slow, awkward to manage at times, and is rather dirty in her habits. She can read her letters and count. She answers simple questions fairly intelligently. There is nothing to account for this condition; no heart lesion; no rickets; no congenital syphilis; no symptoms of pancreatic insufficiency. She digests cod liver oil well. For a few weeks I gave her some thyroid extract; her mother thought she was brighter when taking it, but it had to be discontinued, as she lost 4½ lbs. in weight. Mr. Hastings Gilford,[1] in his paper on "Ateleiosis," a disease characterised by conspicuous delay of growth and development, divides his cases into three groups:

1. Appearing before birth.
2. During infancy.
3. In the later stages of development.

The facial expression and general appearance of these cases must vary with the age of onset of the disease. The word infantilism has been used by many writers in cases where it is only a symptom, as in some cases of congenital syphilis or of congenital heart disease. Mr. Gilford, however, refers to a condition which he calls "normal infantilism," and says, "We recognise that growth may vary greatly, and that it may sometimes be excessive without being morbid; just in the same way as there may be normal giants, so there may be normal dwarfs; and in some of these dwarfs there is not only delay or arrest of growth, but also of development. The chief point of difference between normal infantilism and ateleiosis is that development is arrested in a much lesser degree in infantilism than ateleiosis, and that these cases eventually may arrive at maturity. At this stage I do not think it possible to say

[1] *Med.-Chir. Tr.*, 1902, lxxxv. 305.

THE PATIENT, AGED 10 YEARS (ON LEFT), COMPARED WITH CHILD AGED 8 YEARS.

definitely whether this child should be regarded as a case of ateleiosis or of normal infantilism. I am disposed to favour the latter. If classed as an ateleiotic, she should certainly be placed in group 3, as the disease came on after the first dentition. Some ateleiotics live to a good old age. With regard to the pathology of the condition, I do not intend to offer any suggestions. Whether the disease is a primary disease of the skeleton, or whether it is dependent on some abnormality of the sexual organs, pituitary body, pancreas, or thyroid gland, is fully treated in Mr. Gilford's paper which I have already quoted.

Progress of the Medical Sciences.

MEDICINE.

Ateleiosis and Progeria are names given to opposite types of disorder in the development of the body. Prolonged infantilism or premature old age are met with under various conditions. Thus they may be merely slight variations from the normal rate of progress. They may occur as symptoms in certain diseases such as syphilis, but in the types under consideration the abnormality is definite and extreme, though not connected with any known disease. Cases of ateleiosis have been described by Mr. Hastings Gilford,[1] and some were shown by him at Oxford. They may be divided into two classes. In the asexual one the individual remains permanently a child in size and appearance, and though the development varies in different parts of the body, the sexual organs are the most backward of any. Thus a boy of twelve showed epiphysial ossification which would be normal at six years, features and a skull like those of a child of three, the height of a boy of five or six years, the dentition of eleven years, and infantile sexual organs.

In a second group there is a similar arrest of development until puberty, when the epiphyses unite and the sexual organs mature, so that the individual remains in general appearance and height a child, but sexually is an adult. A middle-aged patient and his son aged ten shown at Oxford were both under thirty-eight inches high. The condition seems compatible with perfect health in other respects, and is not connected with any known disease, nor can any cause be assigned to it. In marked contrast to these cases are the instances of sporadic cretinism.

[1] *Med.-Chir. Trans.*, 1902, lxxxv. 305; *Practitioner*, 1903, lxx. 797.

morbus cæruleus, Mongolian idiocy, and perhaps what Byrom Bramwell terms "pancreatic infantilism." In the latter the growth of the body ceases, and a chronic diarrhœa with swollen and tympanitic abdomen are noticeable, but the patient may be mentally bright and intelligent. The epiphyses remain ununited and the sexual organs are infantile.

The absence of the pancreatic secretion in one of these patients was proved by David Young from (1) the excess of fat in the stools, (2) the small amount of phosphoric acid in the urine on a milk diet, and (3) the results of Sahli's test. Under the administration of a glycerine extract of the pancreas rapid growth, cessation of diarrhœa, and sexual maturity took place and the other symptoms ceased.[1]

Only two certain cases of progeria are recorded by Mr. Gilford, one of which died at seventeen and the other at eighteen with the marks of old age, lean, feeble, decrepit, and bald. The skin was dry and wrinkled; some of the arteries were calcareous, and in one at least there was a persistent thymus. Both were under 40 inches in height, and showed a "curious mixture of immature development on the one hand and of premature old age on the other." The disease probably commenced about the period of the first dentition, and is not a termination of ateleiosis. The writer suggests that acromegaly and progeria may be opposite disorders.[2]

The *Practitioner*, in speaking of these cases, refers to the death in 1754 of Hopkins Hopkins, weighing seventeen pounds at most, with all the marks of old age, though only seventeen years old. Portraits of some of Mr. Gilford's patients are published in the volume of the *Transactions of the Medico-Chir. Society* already cited.

* * * * *

The Early Diagnosis of Phthisis. Much has been written of late on this subject because it is strongly felt that to obtain a high percentage of cures, and not merely success in favourable cases, the treatment must be commenced far sooner than is usually done. If we are starting sanatoria great care is needed to choose from the crowd of applicants those patients who will probably get lasting benefit. Thus C. H. Cattle[3] would select only: (1) Cases with the disease limited to one lobe of one lung without signs of cavity, and whose temperature is not much above normal after a week or two of rest in bed; (2) Many cases of pleurisy on account of their frequent lapse into phthisis. He would exclude acute cases unless the symptoms subside without great destruction of lung, all in which a cavity can be recognised except some chronic cases in which considerable repair has occurred, and all cases with glycosuria, tuberculosis

[1] *Scottish M. & S. J.*, 1904, xiv. 321.
[2] *Med.-Chir. Trans.*, 1897, lxxx. 17; *Practitioner*, 1904, lxxiii. 188.
[3] *Practitioner*, 1904, lxxii. 218.

of the kidney, or intestinal ulceration. Cases with feeble circulation and frequent bronchial catarrh may often be better treated abroad.

What then are the earliest symptoms of phthisis? F. S. Clarke[1] emphasises the following points: (1) An increased pulse-rate; (2) Gradual loss of weight without an obvious cause; (3) Digestive disturbances; (4) An evening rise of temperature in some cases; (5) Tubercle bacilli, if present in considerable numbers; (6) Vesiculo-bronchial breathing; (7) Small crepitant rales at the end of inspiration; and in addition we may have recourse to the tuberculin test or to the X-rays for confirmation. Some few of these symptoms may be all we have to guide us if the disease is to be checked at once. As Cattle says, the patient may complain of nothing pointing to chest trouble, but only of dyspepsia or lassitude. Yet inquiry may show a history of hæmoptysis, pleurisy, or probable contagion, and the rectal temperature may be found to be abnormal after exertion. There is in these early days often an absence of bacilli, and much time may be lost in relying upon negative reports, though when no physical signs exist, the sudden expectoration of a lump of purulent sputum laden with bacilli may lead to the fortunate discovery of hidden mischief. Suspicion may be raised by the general appearance, or the shape of the chest. This is usually described as flat or alar, and when seen with the long neck and prominent larynx, so dear to some artists, and the hair growing down the back, it has long been held of evil augury. Woods Hutchison, however, shows that in phthisical patients the antero-posterior diameter is not generally reduced. The ratio in health of the two diameters in adults is as 100 to 70, whereas in forty tubercular cases in America he found the ratio was 100 to 79.5. At Brompton it was 100 to 79.6, and Colbeck at Victoria Park found it was 100 to 80.3. Thus something more than the actual ratios must be considered if any reliance is to be placed on the shape. As to physical signs, there are two causes which prevent our getting much aid from them in early stages of the disease, as Isambard Owen[2] points out. One is the essentially intermittent character and progress of the complaint, so that they may not be apparent at the particular time of the examination. The other is the fact that most of the signs are given only by lesions near the surface of the lung. Among other difficulties we may notice Cattle's point, that in health we so frequently hear harsh breathing and increased vocal resonance at the right apex that when they occur as a result of disease they are apt to be overlooked. Increased resistance to percussion and diminished movement at the apex may precede dulness or other signs or cough. Sometimes early and very important signs are found in diminished breath sounds over the right scapula, or

[1] *Med. Rec.*, 1904, lxv. 55. [2] *Brit. M. J.*, 1904, i. 765.

breath sounds at its angle which are only equal to or less than those on the opposite side, whereas they ought to be louder. After rickets and similar conditions an asymmetry of the chest may be found, which not only makes the heart itself appear abnormal and displaced but may give rise to misleading differences in the percussion note.[1] Persistent rales at the end of inspiration in the upper part of the lungs are among the most reliable signs we have, but they must be distinguished from the dry, dull crackle of apical emphysema (Isambard Owen) and the bubbling heard during the swallowing of frothy saliva (Baumler). Moreover, these rales may be found only towards the axilla, or on the upper part of the first interscapular space on the right side, instead of at the apex. Fine rales along the border of the left lung with a history of hæmoptysis have often been put down to phthisis, while their real cause was mitral stenosis. It has been said that the true rales of phthisis may be heard by Cybulski's method of listening with the observer's ear about three inches from the patient's open mouth, and Remouchamps thinks[2] that fine crepitations of a particular type heard in this way are pathognomonic, and indeed one of the best tests we have.

Hæmoptysis again is a most important indication if we can be sure of its origin. Though there may be no physical signs to supplement it a careful watch should be made whenever it occurs, for symptoms such as pyrexia, or loss of weight, or the presence of bacilli. Sometimes the X-rays will show marked changes in the upper part of the lungs or altered movements, which may aid our diagnosis. Thus Stanley Green, at the Clinical Society in May, spoke of the unilateral check to the movements of the diaphragm, the presence of scattered areas of shadow, and changes in the slope and shape of the ribs as revealed in certain cases by the rays.

Serum Diagnosis. The tuberculin test is comparatively little used in this country. Koch, however, claimed that in 3,000 cases he had positive results in 99 per cent. Occasional failures do, however, occur. Thus sometimes reactions are seen in syphilis. Mazziotti[3] notes them as occurring in convalesence after typhoid, and possibly in some cases of chlorosis. Arloing devised an agglutination method with pleural fluid, and much discussion has taken place as to its value. If any high degree of accuracy is to be obtained a constant amount of the fluid and of cultures of known strength must be used, as Buard points out,[4] and the time required must be fixed. Cyto-diagnosis is another procedure based on the enumeration of the cells in pleural effusions, brought forward by Widal and Ravaut. In tubercular cases they found the cells were chiefly lymphocytes with some red cells, and never more than 10 per cent. of them

[1] Baumler, *Ibid.*, 769. [2] *Semaine méd.*, Dec. 2, 1903, p. 392.
[3] *Clin. med. Ital*, No. 9, 1901.
[4] *Gaz. hebd. d. Sc. méd. de Bordeaux*, 1901, xxii. 351.

were polynuclear ones, whereas in pneumococcal and similar cases the polynuclear cells were in the majority. However, H. C. Earl[1] remarks that in the early stage of tubercular cases, *i.e.* for the first ten days, polynuclear cells are very numerous, while in the effusions of more or less advanced phthisis the cells may vary, possibly because a mixed infection exists at that time. With these exceptions, he thinks that the test is a reliable one. Under certain conditions the serum from joints affords similar indications, and in most cases of tubercular meningitis there is also a marked increase of lymphocytes in the cerebro-spinal fluid, though this is found also in tabes, general paralysis, and some other states. Though these tests are not yet completely understood, they are capable of giving useful information in some cases, and the examination of pleural fluid is especially important.

G. PARKER.

SURGERY.

The Surgical Treatment of Bright's Disease. — Sufficient time has now elapsed since the introduction of nephropexy as a cure for Bright's disease to form a more accurate opinion of its real value. We have already referred to the original paper by Edebohls,[2] published two years ago, giving the details of his technique in operations for movable kidney. From that paper we quote the following extract:—"No less than sixteen of my own cases of nephropexy came to operation with chronic nephritis, and one with acute nephritis. Not only was the inflammation of the kidneys not aggravated in any case, but the great majority of the patients were permanently cured of their nephritis as one result of the operation. Six of the patients suffering with nephritis at the time nephropexy was performed upon them are in perfect health, and the urine remains free from albumin and casts at periods varying from two to over eight years after operation." Now this was perhaps the view of an enthusiast, but we are now able to apply the experience of others to a correct estimation of its value; and, in passing, we must give our American friends the full credit for prosecuting this branch of surgical inquiry.

The subject was somewhat fully discussed by the Chicago Surgical Society recently,[3] and it may be profitable to consider the various views expressed; and in particular those of Dr. Emil Ries, which are opposed to the opinions as to the pathological causes of operative success. Dr. Ries had a patient, aged 44, with hæmaturia from the left kidney, the urine from the right kidney being normal. In August, 1901, left nephropexy was performed, but the hæmaturia returned after a

[1] *Dublin J. M. Sc.*, 1903, cxiv., No. 384. [2] *Ann. Surg.*, 1902, xxxv. 169.
[3] *Ibid.*, 1904, xxxix. 617.
See also *Bristol M.-Chir. J.*, 1902, xx. 241, 336; 1904, xxii. 62.

short interval. A few months after the first operation the left kidney was removed. The newly-formed capsule around the kidney was about as thick as one's little finger, and was very firmly attached all round, so that it would have been difficult to remove the kidney with the capsule; but it was easy to detach the capsule from the kidney itself and remove the kidney. From the kidney removed over 600 sections were made and examined, and among the 600 sections there was but one single anastomosis, and this in the path of an incision into the pelvis of the kidney, merely a vessel in scar tissue.

This experiment in the human subject, if it may be so called, proved conclusively that the theory of the *modus operandi* of this operation, to wit, that it was due to a newly-formed anastomosis, was incorrect. But the incorrectness of the theory did not necessarily prove the incorrectness of the treatment. From his experience in five cases he was sceptical as to the results of this operation, and had two fatal cases to record, *i.e.* fatal within seven months of operation. Operation did not improve the prognosis in those cases in which there was disturbance in the fundus oculi. In cases of floating kidney, with the presence of albumin in the urine, improvement seemed to follow operation with decapsulation to a greater extent than without it; but as a treatment for chronic interstitial nephritis, he would never advise the operation, although he would operate as an experiment if asked by the patient to do so.

Dr. Arthur Dean Bevan did not think renal decapsulation could be called the surgical treatment of Bright's disease, because, as a fact, the great majority of surgeons throughout the United States and of the world had never accepted the operation as being a logical procedure. . . . Stripping off the capsule for the cure of Bright's disease was of little, if any, value; and it now only remained for the profession to convince Ferguson, Edebohls, and others of this fact. Dr. E. W. Andrews reported four cases. In three there was no improvement; in the fourth, he thought it was likely that the nephropexy and not the decortication did the work of relief from symptoms of intermittent hydronephrosis with unilateral nephritis. . . . Dr. L. L. McArthur gave the following conclusions from a case of double decapsulation of the kidney: General improvement, improvement in the urine from the first kidney operated on, improvement in that from both kidneys after the second kidney was operated on. Dr. Ochsner had operated on seven cases, all but one of which seemed hopeless, and in all but one there was marked albuminuric retinitis. Four out of the seven had died within one year after the operation, one of them within a few weeks. One improved materially after operation on one kidney, and expressed the desire to have the other kidney operated on; but he died in seven days from acute uræmia. Three were alive, including one operated on only a few weeks previously. Dr. A. H. Ferguson said that in the milder cases

of nephritis the results of decapsulation were beautiful, both immediate and permanent. He regarded the mortality of renal decapsulation *per se* as about 6 per cent.; but that, after operation, many cases died from the original disease, not merely from surgical intervention. He had years ago refused to operate on cases of floating kidneys because there was Bright's disease as well. Now it was an indication, the indication being the nephritis itself. He did not mention his actual mortality from operation, but of the five cases of which he gave details, two died and three were improved.

From a consideration of the cases described, one is led to the conclusions, firstly, that many cases of mechanical nephritis from wandering kidney have been included in the reports; secondly, that, although in some cases wonderful improvement has taken place, yet the mortality within a comparatively short time of operation will prevent judicious surgeons from adopting decapsulation as a certain cure for Bright's disease. And one of the strongest advocates for the procedure, after operating on a case with general œdema, said, "Nothing surgically could be done which would be of benefit in these cases of small white kidney." The sooner surgeons cease to operate on such cases, therefore, the better for the reputation of the art they practise. Nor must we forget that the strongest advocate of all is he who fixes the decapsulated kidney, removes the appendix, and fixes the uterus all at one sitting—a sense of operative proportion which scarcely appeals to most surgeons; and which, perhaps, deserves the designation of Dr. A. D. Bevan as the gynæcological treatment of Bright's disease!

T. CARWARDINE.

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The visit of Lorenz to this country and his demonstration of his method of treating **congenital dislocation of the hip-joint** by manipulation and fixation in plaster[1]—"the bloodless method" as it has been called, to distinguish it from the open operation—has called the attention of surgeons to the treatment of this deformity. An interesting paper on the subject was read by Mr. Burghard[2] in the section of Children's Diseases at the last British Medical Association meeting, and various other papers and letters have been published.[3] It is generally agreed that the Lorenz bloodless method is the best one to employ, and that an operation should only be performed if it fails. By manipulation under an anæsthetic the head is reduced so as to lie against the imperfect acetabulum, and it is fixed thus by encasing the limb and pelvis in plaster for many months. Lorenz believes that in a large number of the cases it remains there, but that in those in which it does not it lies in a position

[1] *Brit. M. J.*, 1903, i. 163. [2] *Ibid.*, 1903, ii. 457.
[3] *Ibid.*, 1903, i. 137, 225, 373.

which enables the patient to walk about much better than he did before. That the method usually leads to considerable improvement in the patient's walk most surgeons who have tried the method admit, but many consider that only very exceptionally does the head remain at the acetabulum. Mr. Muirhead Little[1] and Mr. Burghard[2] have shown by statistics of the results obtained by various continental surgeons how frequently reluxation occurs, and Mr. Burghard states that out of thirty cases of his own, in only one was there a true permanent reduction, though the gait of a great many was much improved. This fact should make us careful to follow up cases for a considerable period before judging of the results of the method. Mr. Burghard says, in speaking of the results of the bloodless method, that great improvement follows in the majority of cases provided that the patient is of a suitable age, but that there is little reliable information at present as to whether the false joint formed is permanently stable. The suitable age as given by Lorenz is up to the ninth to tenth year for unilateral cases and the seventh to eighth for bilateral.[3] Mr. Burghard himself is in favour of operation by his own method after five years of age, rather than non-operative manipulation. Bilateral cases are found to be, as one might expect, more difficult to treat than unilateral ones. In Lorenz's bloodless manipulation, when the child is under the anæsthetic, by a series of sharp blows with the ulnar border of the hand he subcutaneously breaks away the attachment of the adductor to the pelvis. Then by traction downwards with extreme abduction the head is brought down to and forced against what there is of an acetabular cavity, and it is put up in plaster in a position of extension and extreme abduction, and allowed to remain so for several months. The exact number of months varies in the different published accounts of the method, but in the abstract of Lorenz's paper[4] it is stated to be four to five months without walking, and then four to five months more with walking on the limb. In order to allow such walking Mr. Burghard[5] states the degree of abduction is reduced and slight flexion substituted for complete extension. During walking the head is pressed against the imperfect acetabulum and deepens it.

In the Hoffa-Lorenz operation as practised at the present time a new acetabular cavity is gouged out of the pelvic bone, and the head is if necessary trimmed to fit it. The chief risk of such an operation is the occurrence of anchylosis. The risks of the operation as regards the life of the patient are not great. Hoffa had seven deaths in 248 cases from sepsis, but no death in his last series of 132 cases. Mr. Burghard[6] and Mr. Tubby[7] replace the head of the bone in the acetabulum by open incision, without deepening the acetabular cavity, and Mr.

[1] *Brit. M. J.*, 1903, i. 225. [2] *Ibid.*, 1903, ii. 461.
[3] *Lancet*, 1900, ii. 830. [4] *Loc. cit.* [5] *Loc. cit.*, 460. [6] *Loc. cit.*, 459.
[7] *Brit. M. J.*, 1903, ii. 463.

Burghard advocates this method in cases in which manipulation fails to give marked improvement and in children over five years of age. He points out that the bone can be thus placed with absolute certainty in the acetabulum after opening up the contracted part of the capsule, which often lies over its lower end, and that the tendency for it to slip out again can be partly corrected by removing and suturing the upper lax part of the capsule. Before undertaking this operation Mr. Burghard divides the adductors, but Mr. Tubby removes a portion of them, and of the sartorius and tensor fasciæ femoris, and puts the limb in plaster in full abduction and extension for six weeks before he operates on the joint.

I have referred to the risks of the Hoffa-Lorenz operation. Mr. Burghard has had no mortality in the thirteen cases operated on by his own method, but Lorenz's bloodless method is not wholly devoid of risk. Lorenz has had in 450 cases eleven fractures of the neck of the femur, two of the pelvis, three of permanent paralysis of the sciatic nerve, as well as temporary paralysis of the nerves,[1] and Mr. Robert Jones in four cases out of thirty-eight fractured the neck of the femur with transposition of the shafts anteriorly.[2]

C. A. MORTON.

Reviews of Books.

A Text-book of Legal Medicine and Toxicology. Edited by FREDERICK PETERSON, M.D., and WALTER S. HAINES, M.D. Vol. II. Pp. 825. London: W. B. Saunders & Co. 1904.

This is the second volume of a work the first volume of which was noticed by us some time ago. It is issued on the same principle as the former volume, and consists as before of a number of monographs by different writers. The volumes form a comprehensive survey of forensic medicine and toxicology. The greater part of this volume is occupied with toxicology, which has eight parts to itself. The first part deals with the malingering of impostors, prisoners, and feigned disease; the legal aspect of pregnancy, legitimacy, abortion, &c. Malpraxis is also referred to. The medico-legal aspect of the Röntgen Rays has a useful chapter; questions have already arisen in America as to the advisability of radiographs as evidence and their interpretation. The American laws relating

[1] *Brit. M. J.*, 1903, i. 225. [2] *Ibid.*, 1903, ii. 463.

to the insane and their position in the different States, is very fully dealt with.

The second part contains the poisons, and amongst other chapters one on food poisoning is of much use to-day, with our improved knowledge of ptomaines and proteid-toxins. A chapter up to date is given upon blood and blood stains, on seminal stains, hairs, and upon death from mechanical irritants, such as powdered glass. A concluding chapter is added on the responsibility of pharmacists in compounding prescriptions, selling poisons, and substituting other drugs than those prescribed. In America it appears the qualifications of pharmacists are left wholly to the Boards and Commissioners of Pharmacy, and the sale of poisons is differently regulated in each State.

Doctors and their Work. By ROBERT BRUDENELL CARTER. Pp. vi., 316. London: Smith, Elder & Co. 1903.

This book deals with many of the problems which arise in the intercourse between doctors and their patients; and contains the author's views on the professional education of students, the aims of medicine, the daily life of medical practitioners, specialism, lady doctors, professional etiquette, and other cognate subjects. All of these are treated with thoughtfulness and judgment; the author's experience is on almost every page, and as Mr. Carter has been in our ranks for more than half a century, and has, during that time, had excellent opportunities of forming opinions on these matters, we may consider his advice and conclusions well worth having. There is very little in the book that any of us would disagree with, for on any question about which men are likely to differ he has a judicial and open mind.

His style is clear and good: occasionally one could wish the sentences were shorter, but they are never involved. Here and there we find criticisms and statements with which we cannot agree, as, for example, on p. 31, when he sharply condemns a schoolmaster for using the expression "the higher we advance." "He did not know," writes Mr. Carter, "that, although we may *rise* 'higher,' we can only *advance* 'farther.'" But the derivation of the word advance would justify the schoolmaster, and indeed Milton and many other masters of English have used it in this way. We might venture to criticise such sentences as "functions to which various organs are subservient," and we do not think Demetrius the silversmith at Ephesus a good example of an "anti," to be classed with anti-vaccinationists and anti-vivisectionists.

But apart from some unimportant points, we can clearly recommend this book as a just and thoughtful expression of opinion from a man who has gained great experience in the work and duties of our profession.

Diseases of Women. By GEORGE ERNEST HERMAN, M.B. Revised Edition. Pp. xvi., 884. London: Cassell and Company, Limited. 1903.

The author describes his work as a clinical guide to the diagnosis and treatment of diseases of women, and states in the preface that he has endeavoured to present these affections in the way in which they appear in practice. As a clinical guide the work is most reliable, and the manner in which the author presents his subject is thoroughly practical.

We do not feel sure, however, that for the student, looked at as an examinee whose opportunities of gaining practical experience have been rather limited, the book is entirely suitable, since it deals very largely with conditions which are not obtruded strongly on the notice of those not in practice.

To the practitioner, however, we consider the information contained in the book will be most valuable; the author deals in clear and succinct language with the various affections indicated by such symptoms as "headache," "abdominal pain," "neurasthenia," &c., and gives most valuable hints, gathered from his own extensive clinical experience, as to the treatment of the various affections underlying these symptoms. His remarks as to the various forms of sexual disturbance are particularly practical, and will perhaps do something to dissipate certain opinions held in the profession which we entirely agree with the author are not only exaggerated but erroneous.

The work throughout is stamped by the author's originality and strong common sense; he does not adduce any startling novelties as to treatment, but by sound pathological reasoning shows the extent to which different methods can be relied on. His remarks on "stem pessaries," "dysmenorrhœa," "endometritis," are particularly worthy of perusal, to instance simple affections; while his views on the early symptoms of malignant disease, the treatment of fibroids, &c., as instances of the more complicated conditions, should meet with universal approval and attention.

The work is not in the least dry reading; in fact, we consider it one of the most readable manuals we have met with, and have no hesitation in saying that no practitioner of whatever standing will read it without profit, while those whose clinical experience is not yet extensive will find it most valuable.

A Text-book of Obstetrics. Edited by RICHARD C. NORRIS, M.D. ROBERT L. DICKINSON, M.D., Art Editor. Second Edition. Two vols. Pp. 554, 547. London: W. B. Saunders & Co. 1902.

This work is a text-book written jointly by several of the best-known American obstetricians, and forms a valuable addition to the literature of the subject.

It is concisely written, but at the same time treats with considerable detail the more important portions of the subject. The student will find in the theoretical portion a large amount of valuable information based on recent researches, while the practitioner will find in the more practical portion valuable hints and explanations of the treatment recommended.

The illustrations, many of which are taken from photographs, are numerous and clear, and several not previously embodied in text-books on this subject will well repay careful study.

The section on the development of the ovum is especially noteworthy in this respect, the illustrations of the early development of the fœtus being most complete, and serving to make clear some of the more difficult points connected with early embryology.

We observe that the author of this section has adopted the views of Peters as to the attachment of the ovum, namely that it practically becomes buried in the maternal decidua by a burrowing process, in the course of which a portion of the maternal decidua is excavated and probably absorbed by the ovum. The structure and development of the placenta are described with great detail and accuracy.

We notice in the practical part the importance which the author appears to attach to the operation of episiotomy. In this, we think, many British authorities differ from him, both as to its efficacy in preventing lacerations and also as to its necessity. Certainly the wound so produced is not a difficult one to close by suture afterwards; to us its only advantage appears that it is rather more easily accessible than the ordinary laceration.

The remark that "operative midwifery is a department of surgery governed by the principles and rules of surgery" is one that, in our opinion, cannot be too strongly emphasised. At the same time, in laying down the rules for practitioners, especially with reference to those dealing with aseptic and antiseptic technique, we note with approval that while the importance of a safe minimum, and that one within the reach of any practitioner, is insisted on, too great complication, and the aiming at theoretical perfection in private practice, is deprecated: for this reason pure aseptic technique is rejected except in hospital practice, and reliance placed on the proper use of antiseptics.

The startling statement, which we are aware is to some extent borne out by certain British records, is made, that of women confined in private practice one in from 89 to 100 dies of septic infection, while the mortality in hospital is less than a fifth of this.

It is curious to note that in one chapter "auto-infection" is spoken of as a counsel of despair, and its occurrence doubted; while in another it is mentioned as being due to certain precedent maternal conditions. The explanation of this apparent

contradiction is that the two sections are by different authors; this, however, is qualified in regard to the first of these statements by the addition "auto-infection in the common acceptance of the term," in which form the apparently contradictory statements are reconciled.

We can thoroughly recommend the work as reliable and interesting.

The Prevention of Disease in Armies in the Field. By ROBERT CALDWELL, F.R.C.S., D.P.H., Major R.A.M.C. Pp. viii., 182. London: Baillière, Tindall & Cox. 1904.

This work will be found of interest and service not only to officers in the Royal Army Medical Corps and volunteer medical staff, for whom it is especially designed, but also to medical men generally, and all such as are interested in the physical well-being of the soldier on service. The great value of Major Caldwell's book lies in the fact that it is essentially modern and practical, founded on personal experience obtained in two of our largest campaigns, namely those in Egypt and South Africa. Enteric fever, the most destructive disease of camp life, naturally claims the greatest amount of attention, and the writer claims that the influence of water supply is of less importance than that of soil pollution in the causation of this disease. Indeed, the keynote of the book is the necessity for a cleanly soil for a healthy camp. Theoretically, there is much to support the view that bacteria of the colon type may undergo modification and excite such diseases as diarrhœa, continued fever, and enteric fever, and Major Caldwell's practical experience in South Africa strongly supports this view. The difficult problem of the disposal of camp refuse, so essential to the preservation of soil cleanliness, is exhaustively dealt with, and a diagram and description of the author's improvised refuse destructor should prove of service to any who are superintending military camps at home or abroad. In questions of military hygiene, such as clothing, marching, cooking, disinfection, &c., this will be found a handy work of reference, the ideas promulgated being scientifically sound and not slavishly moulded in the traditions of the service. The chapter on the sanitary organisation of a field force is likely to meet with sharp criticism from army medical officers. The numerous illustrations are interesting mementoes of a medical officer's work in the late South African campaign. We trust that this book will be extensively read, for the lamentable history of recent campaigns has shown that our army medical authorities have not yet appreciated the fact that in war, even more than in peace, the prevention of disease is more important than the cure.

The recent award of the Parkes prize will give this book the position it so well deserves.

Operationen am Ohr: Die Operationen bei Mittelohreiterungen und ihren Intrakraniellen Complicationen. Von Dr. B. HEINE. Pp. viii., 178. Berlin: S. Karger. 1904.

The methods of operating for the relief of suppurative diseases of the ear and their complications discussed in these pages are those ordinarily carried out in Prof. Lucae's clinic in Berlin. The author, Dr. Heine, is the first assistant in that clinic, which is one of the largest and most famous in existence. No one practising aural surgery can therefore fail to be highly interested in the concise account given, not only of the technique of the various operations as performed there, but also of the conditions which are regarded as the proper indications for each operation and of the details of the after treatment, and in the critical estimate of the value of the operations, which is in each case appended.

Nearly two-thirds of the book are devoted to the consideration in detail of the operations on the tympanic membrane, the ossicles and the mastoid process. In the latter part of the book the intracranial complications of suppurative ear disease are dealt with. Of these complications lateral sinus thrombosis is more fully discussed than abscess of the brain and meningitis, the description of the symptoms of the two latter secondary diseases being intentionally brief.

We have been much interested in reading that in the clinic mentioned ossiculectomy has not been found of much value, that Wilde's incision for mastoiditis is no longer made, and that skin-grafting after the radical mastoid operation is hardly thought worth the trouble it involves, and is now rarely undertaken. In the treatment of lateral sinus thrombosis the jugular vein is ligatured only in special circumstances. Operations on the labyrinth for suppuration within it are performed only when the special symptoms of the affection are severe, and when the objective signs, after opening up the tympanum, show that the labyrinth is extensively involved in the suppurative process. For the detection and drainage of cerebral and cerebellar abscesses the mastoid operative route is preferred to that through trephine apertures made in the outer parts of the skull; by the former route the operator follows the course of the disease. Lumbar puncture for diagnostic purposes, a procedure not devoid of danger, is rarely performed, and only when the symptoms present strongly suggest the existence of suppurative meningitis.

We have alluded above to a few of the many interesting problems discussed in the book. Seven good plates illustrate the surgical anatomy of the temporal bone and mastoid operations. The book will be found a valuable one alike by specialists and general surgeons

The Physiognomy of Mental Diseases and Degeneracy. By JAMES SHAW, M.D. Pp. xii., 83. Bristol: John Wright & Co. 1903.—Dr. James Shaw has done well to republish in book form, with some amount of revision, the interesting articles by him which appeared in various years in the *Medical Annual*. To be able to make a diagnosis—tentative or absolute—of the various forms of mental derangement is a desirable acquirement, and one which can be facilitated by a study of this work. With some help from other alienist friends, Dr. Shaw has brought together in the text a valuable body of notes upon the appearance, behaviour and physical characteristics of the different types of the insane and mentally degenerate. The concise and clear language in which the phenomena are described make the observations exceptionally valuable. Chapter xii., on The Stigmata of Degeneration, as the indications of degeneration are known, is particularly good and illustrated with many helpful pictures. The book is indeed abundantly illustrated throughout, but we confess that many of the pictures do not seem to carry conviction with them, for example, Fig. 11, representing Delirium Tremens. This in the nature of things is perhaps inevitable; nothing short of a cinematograph could adequately reproduce the physiognomy and gestures associated with this mental state, whose chief characteristic is an ever changing mobility. On the other hand, of such mental conditions as are associated with corporeal defects or malformations—such as microcephalic idiocy, cretinism and so forth—the illustrations are admirable and have much verisimilitude. This interesting little book proves that Shakespeare spoke with less than his usual accuracy of observation when he said—

"There 's no art
To find the mind's construction in the face."

Transactions of the Association of American Physicians. Vol. XVIII. Pp. xxiii., 716. Philadelphia. 1903.—We are accustomed to look for the evidences of good and original work in these *Transactions*, and this volume seems to us to be of more than usual importance from the number of valuable contributions to medical science that it contains. We fear that in *Transactions* generally there is published an amount of good work that fails to receive adequate attention. Without making invidious distinctions, and with the proviso that all the papers in this volume will repay perusal, we would draw the reader's attention to the several contributions dealing with tuberculosis, especially from the experimental side, to the paper by Dr. McCallum on The Production of Specific Cytolytic Sera for Thyroid and Parathyroid, to Dr. Crozer Griffith's article on Thymus Death, to Dr. Wm. Osler's paper on Chronic Cyanosis with Polycythæmia and Enlarged Spleen, to articles on Splenic Anæmia by Drs. Dock and Warthin and by Dr. Morse. There is also an important contribution by Dr. Lewellys Barker on The Pathological Changes in the Nervous System in two of Dr. Sanger

Brown's celebrated cases of Hereditary Ataxia, and an exhaustive paper by Dr. C. L. Dana on Acute Bulbar Paralysis. Articles by Dr. H. A. Hare and Dr. Cabot respectively on The Action of Alcohol in Disease will also be found of interest; and in conclusion we can only advise our readers to give the whole volume a careful study, and commend the provision of an index.

Transactions of the Epidemiological Society of London. Vol. XXII., 1902–1903. London: Williams & Norgate. 1903. —The papers included in this volume are of exceptional interest and great practical importance. We would especially call attention to Professor Delépine's papers on Epidemic Diarrhœa and Food Poisoning, and on the addition of preservatives to milk. It cannot be too strongly impressed upon the medical profession that zymotic diarrhœa is a form of food poisoning, and one which can be prevented by proper attention to the storage and preparation of milk. A paper by Dr. Louis Parkes on The Prevention of Diphtheria Outbreaks in Hospitals for Children is full of practical hints as to how such epidemics may be prevented. Incidentally he mentions that 1.9 per cent. of children admitted with pseudo-diphtheria bacilli in the nose and throat subsequently developed clinical diphtheria; but as 1.6 per cent. of cases showing no pathogenic bacilli also developed the disease, it will be seen that the detection of the pseudo-bacillus is of small importance. One of the most interesting articles is by Jonathan Hutchinson on The Etiology of Leprosy, in which he upholds with characteristic skill the theory that the specific cause gains access to the system by the stomach in the eating of fish which is in a state of commencing decomposition.

A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa. By GEORGE WHITFIELD OVERALL, M.D. Pp. 207. Chicago: Rowe Publishing Company. 1903.—This book is founded on considerable knowledge of the pathology of prostatic and urethral infections, and of scientific methods for their treatment. It is prefaced by the remarks, "Damage once done to the prostate by the knife is irreparable. Better bear the ills we have than fly to those we know not of." The author is particularly critical upon Bottini's operation, and we think is justified in denouncing its general use. He describes in full what he calls his own method of treating the enlarged prostate at the neck of the bladder by repeated slight cauterisations with a special instrument, or by electrical cataphoresis. He says, "After having allayed the acute symptoms, I 'hammer' at the prostate both through the rectum and urethra until the indurated tissue begins to soften, then atrophy." Speaking of neurasthenia, he says, "The disease so commonly referred to as 'nervous prostration' might, in the large majority of instances, be traced to the prostate, should the attending physician take

the care to examine the patient for this trouble." We can appreciate his point of view from the standpoint that the prostate is a "sexual brain," although it is the first time we have read of a man's wits on his beam ends. Those interested in this branch of treatment may gleam some useful hints from this book, although we cannot endorse some statements, and others seem a bit "tall."

Cancer of the Uterus. By ARTHUR H. N. LEWERS, M.D. Lond., F.R.C.P. Lond. Pp. vii., 328. London: H. K. Lewis. 1902.—The chief object of the author appears to be to emphasise the good results which can be obtained by early operation in cases of uterine cancer. This point is exemplified by nineteen cases that have lived some years since operation, but as they form only about 2 or 3 per cent. of the total number of cases of cancer of the uterus seen by the author it is clear that the disease in question leaves much to be desired in general results. The fact that so many cases come too late for any radical operation to be successfully performed is attributed to the ignorance of women of the early symptoms of cancer, and to obviate this a suggestion is made that a leaflet should be issued by some impersonal authority to doctors, matrons, and nurses, setting forth the importance of recognising suspicious signs occurring about the menopause. An unnecessary amount of space is taken up in the description of individual cases, but the varieties, symptoms and treatment of the different forms of malignant growths are clearly described. In the account of "pan-hysterectomy" no mention is made of the removal of glands, which would appear desirable if the removal of the uterus for cancer is to be brought into line with operations for cancer in other parts of the body. Deciduoma malignum receives only an incidental mention, but it is of sufficient importance to have had a chapter devoted to its pathology, symptoms and treatment. The book is freely illustrated by serviceable woodcuts and coloured plates.

The Manual Treatment of Diseases of Women. By GUSTAF NORSTRÖM, M.D. Pp. 230. New York: G. E. Stechert. 1903.—This monograph is based on observations gathered from an experience in pelvic massage extending over more than twenty-five years. An account is given of the history of this method of treatment, and the various objections which have been urged against it are discussed. The author appears to have had considerable success in the treatment of all chronic inflammatory affections of the uterus and appendages, and the histories of a large number of cases are given. In the treatment of uterine displacements by pelvic massage it is not claimed that the abnormal position of the uterus is rectified, but that the chronic endometritis and metritis (which are the cause of the pain) are cured. The treatment is recommended as a palliative and harmless measure in the case of small fibroids, giving rise

to menorrhagia, metrorrhagia, and leucorrhœal discharge; there does not appear to have been any marked diminution in the size of the tumours in the cases recorded, although the menorrhagia and other symptoms were relieved. In Chapter xiv., which deals with diseased conditions of the tubes and ovaries, the author very rightly advises great caution in the application of the treatment, on account of the danger of rupturing a distended tube, and thus setting up peritonitis. Although in some cases of chronic metritis and parametritis this method of treatment seems to be beneficial, we do not think it will ever be largely employed in this country.

Diseases and Injuries of the Eye. By GEORGE LAWSON. Sixth Edition. Revised and in a great measure rewritten by ARNOLD LAWSON. Pp. xx., 587. London: Smith, Elder & Co. 1903.—It is now nearly twenty years since the appearance of the Fifth Edition of George Lawson's text-book in "Renshaw's Manual" Series, and those who are familiar with that admirable little book will cordially welcome this new and much enlarged edition, revised, and in a great measure rewritten, by Arnold Lawson. The general arrangement of the work has been entirely altered, and many chapters, such as those on elementary optics and the development of the eye, have been added so as to make the work complete. At the same time its practical utility as a clinical handbook, the distinguishing feature of previous editions, has been retained. The language is clear and definite, and the reviser has not hesitated to relate his individual experience. By most praiseworthy and exhaustive bacteriological examination of more than two hundred healthy conjunctival sacs, he is able to disprove the statements of authors which have led to the conjunctival sac being regarded as a "species of anatomical sink, teeming with all manner of micro-organisms." His facts go to show that the conjunctival sac and its secretion exert a detrimental influence on the growth of bacteria. Of course, omissions when space is limited are inevitable, but we should have expected some reference to the use of adrenalin, and the therapeutic use of X-rays. On the whole, however, the work is singularly accurate and up to date, and is furnished with a concise table of contents, a full index, and a formulary of prescriptions. These features, and especially the thoroughly practical character of the work, render it particularly well fitted to meet the requirements of the busy practitioner.

Eye Symptoms as Aids in Diagnosis. By EDWARD MAGENNIS, M.D. Pp. 108. Bristol: John Wright & Co. 1903.—Without knowing more of the peculiar requirements of Irish Poor Law medical officers—for whom this book is specially intended—we cannot say how far it supplies a real want. It covers, or rather extends over, a very wide field, and undoubtedly contains much information, but it is frequently ambiguous, inaccurate, or

misleading. The spelling and punctuation are by no means faultless. We are told that "a bilateral cataract" may develop during the course of diabetes, and that nystagmus (defined as "a rapid oscillating movement of the eyes in one direction") is "not of any special diagnostic moment to the physician," whilst inequality of the pupils is pathognomonic of general paralysis. Twelve pages are devoted to "some ophthalmic terms and their meanings," and contain a fund of "latinity" (ranging from *rhytidosis corneæ* to *lapides cancrorum*) which should satisfy the requirements of any practitioner.

Lectures on Massage and Electricity in the Treatment of Disease. By THOMAS STRETCH DOWSE, M.D. Fourth and Revised Edition. Pp. viii., 454. Bristol: J. Wright & Co. 1903.—This book has already been reviewed in our columns, and, as the volume before us is the fourth and revised edition, it is hardly necessary to say more than that it presents the same features as former editions, with the additions mentioned below. When a work has reached the fourth edition it has evidently gained an audience to whom it is useful, and is too well known to be affected by praise or blame from the reviewer. No one would now dispute the author's statement in his preface that "massage . . . is an important physical aid in the treatment of diseased states." The same statement can be made with equal safety with regard to electricity. There is no doubt that every medical man should have some acquaintance with the applications of massage and electricity, should know what can and what cannot be done by them in the alleviation of disease, and be prepared to use both in an intelligent way. If this desirable consummation were reached we should hear less of the abuses of these forms of treatment in unqualified hands. To the section on electro-physics the author has added an appendix dealing with the X-rays, with high-frequency currents and with phototherapy. The mode of production and apparatus necessary for the X-rays and high-frequency currents are described, and directions given for their practical application in medical treatment.

A Manual of Ambulance. By J. SCOTT RIDDELL, M.B., M.A. Pp. xvi., 227. London: Charles Griffin & Co., Ltd. 1904.—This, the fifth edition of a useful little work on "first aid," is now brought up to date. It is well illustrated, and the subject matter is placed before the reader in a simple manner. The examination papers at the end of the volume are of the character that is required for those wishing to know something of "first aid"; they are not too deep, and the information asked for in them does not, as so often happens, lead the learner to think that he can do without surgical aid from a medical man.

Editorial Notes.

British Medical Association.

THE seventy-second annual meeting of the British Medical Association, which was held in Oxford, was beyond question one of the most successful meetings in the memory of members of the Association, as it was in point of numbers much the largest yet recorded. It was remarkable also for the persistence and enthusiasm with which, in spite of all the counter-attractions of that ancient and glorious seat of learning, and of the diversions, entertainments and receptions arranged by the members of the University and by the citizens, a quite unusually large proportion of the members who were visiting Oxford steadily pursued the actual business of the meeting in the various sections. Not only was the occasion distinguished by the presence and participation in the sectional meetings of a considerable number of eminent foreign visitors, and of an exceptionally numerous gathering of the recognised leaders of thought and investigation in medical science in our own country and the colonies, but it was also rendered memorable by the great importance and originality of the new work brought forward in many of the sections. The above views are those of a writer in *Nature* (August 4th, 1904, p. 332), and we quote them, as coming from a scientific rather than a professional standpoint, to show that the annual meeting of the Association has not yet degenerated into an annual picnic.

The fair city of Oxford presents so many attractions that the meetings might well have taken second place in the minds of the visitors, for whom the civic and the University authorities did everything possible to further the credit of the city and the enjoyment of its guests. The medical members were not allowed to linger too long on the

> "Strange enchantments of the past
> And memories of the days of old,"

but the president's address breathed the spirit of the Oxford of the present day, for so many and such rapid changes have

occurred that the revival of the medical school is only on a line with the complete change which has come over the city during the last few decades. The president's reference to the earlier benefactors of the University recalled to his hearers that ancient past, to which so many speakers subsequently alluded, more particularly Professor Osler, who, speaking in the hall of Christ Church, made especial allusion to John Locke, whose portrait is hanging on the walls, and who was distinguished not more by his intellectual insight than by his rational piety, love of truth for its own sake, and manly sympathy with civil and religious liberty. We, in the West of England, may well recall the fact that Locke was born at Wrington, and that he has been called the father of modern inductive psychology and the Socrates of England. The addresses in medicine and surgery have been fully reported. The former is likely to be of great service in the work of sanitary organisation which the Association is endeavouring to perform.

As regards the work of the sections, it is difficult to select any points for comment in a brief notice such as this must necessarily be. It was anticipated that a discussion on chloroform anæsthesia would attract a large attendance; accordingly the meeting was held in the hall of Balliol College, and was presided over by Professor Gotch, F.R.S.

The debate opened by Professor Osler in the medical section was rendered memorable by the following observation, which is in advance of anything hitherto believed, when he stated that "in the absence of evidence in any case of pleurisy of a pneumonic or pyogenic origin it should be assumed, for the purposes of treatment, that it was tuberculous."

Papers on Giants and Dwarfs and Ateleiosis were read, and the presence of a remarkable group of dwarfs excited much interest. Recent papers on this subject are referred to in our *Progress* (page 249), and a paper on Infantilism by Dr. Cecil Williams is found on another page (*vide* page 247).

A discussion on the control of the milk supply was opened by Dr. Newman, whose conclusion was that the demand for reform must come from the consumer, who appeared to wish to have good milk at a price for which only bad milk could be

procured. A paper on this subject by Dr. Brickdale (page 196) is of much interest in this connection.

The Pathological Museum was one of which the local committee might well be proud. Photographic, stereoscopic, radiographic, and microscopic preparations were very numerous, and many of them most instructive, the demonstration of the cellular changes occurring in malignant growths being of great interest at the present time. The *British Medical Journal* reminds us that Oxford saw the institution of an annual museum, and Oxford has now set a standard of excellence in illustration of the more recent developments of medical science which will be exceedingly difficult to maintain.

The annual exhibition of foods, drugs, instruments, and sanitary appliances, held in the Examination Schools, was very conveniently placed, and the exhibits were of the usual varied character. They are for the most part familiar, but some of them, which have not previously received comment in our pages, will duly receive attention in our Notes on Preparations for the Sick.

The following notes, from one of the representatives of the Bath and Bristol Branch, show that the new constitution of the Association is working out satisfactorily:—

The annual meeting of the representatives, as in the previous year, showed considerable business ability on the part of its members, and a refreshing, and perhaps not altogether expected, absence of irrelevant verbosity. The establishment of these meetings of representatives must be regarded as a decided success in combining the orderly conduct of the business of the Association with representation of the members on a democratic basis, and in providing a suitable opportunity for the discussion of matters of general medical importance. No small share in this success is to be attributed to the tact and capacity of the chairman, Sir Victor Horsley, who deserves great praise for his conduct of the meetings, and who, apart from the actual duties of chairmanship, brought to it a wide knowledge of medico-political matters which was of great service to the meeting.

That the chairman is a member of the General Medical Council is of especial advantage in this respect, and it is much

to be hoped that Sir Victor will retain the chairmanship for another year, if not longer. The chief subjects dealt with by the meeting have already been published in the *British Medical Journal*. Brief mention may be made of the discussion of Medical Defence, on which no direct vote was taken, as the returns sent in from the divisions were not complete. The general impression left by the discussion is that given in the Editorial Notice (August 6th) in the *British Medical Journal*, that the undertaking of Medical Defence by the Association should be combined with some form of amalgamation with the societies which already exist for that purpose. Some general principles of Hospital Reform, formulated by the Hospitals' Committee, were adopted by the meeting as a basis for further action in which the co-operation of laymen interested in hospital work should be obtained, and the attainment of a moderate measure of reform, on all hands acknowledged to be greatly needed, thereby rendered more probable. Amongst other matters the reader will find some useful facts with regard to the furnishing of information to coroners by medical men in the Supplement to the *Journal* of August 6th.

It was resolved to take steps to correct the omission of provision in the Midwives Act for the payment of a fee to a medical man called to render assistance; and the majority of the meeting was in favour, quite rightly as we think, of the registration of nurses. It seems to us that the objection often made to registration—namely, that it will confer a recognised status on incompetent nurses and so enable them to compete on equal terms with properly trained and efficient ones—is quite unfounded. No nurse, any more than a doctor, will get patients by being on a register; success in her avocation will depend, as before, on her ability as a nurse, but the Act will ensure a certain fixed minimum of training, and exercise a restraint on the vicious and unscrupulous, who are to be found in all professions, and in these two ways protect the public. Among minor matters a resolution was moved which will enable, when carried into effect, branches or divisions to help out of their surplus funds medical benevolent societies, or the widow or family of a brother practitioner. This was the custom of many

branches under the old constitution of the Association, and in our opinion is a highly desirable one, for care of its less fortunate members is a source of strength to an Association such as ours.

* * * * *

Hospital Administration.

THE question of the form and amount of hospital abuse is a vexed one even amongst members of the medical profession, and it is not therefore a matter of surprise that the general public has shown a scant and tardy interest in the subject.

The difficulty of dealing with so complex a thing as the distribution of medical charity, and the desire, both of the profession and the public, not to treat the deserving poor with harshness, are largely responsible for the gradual growth of an abuse which has now reached considerable proportions.

A sub-committee of the Bath and Bristol Branch of the British Medical Association, appointed in 1895 to inquire into this subject, found that no less than 356 per 1,000 of inhabitants in Bristol were in receipt of gratuitous medical relief. These figures are but a type of what is happening all over the country, and it is obvious that the funds of the medical charities are thereby unnecessarily depleted. A further result is that the overcrowding of the various departments engages much of the time and attention of the doctors which should be given to the really deserving cases that are apt to be crowded out; and the pauperisation of a large part of the community is slowly but surely being accomplished by the very means which were primarily intended for their help in time of stress.

One of the newer and subtler forms of abuse, which has not attracted much attention, because it appears superficially to be free from objection, is brought about by workmen's subscriptions to the medical charities. Such moneys are usually obtained by the formation of a sort of club amongst the workmen of certain firms—each employé putting aside a penny per week of his wages—and with the sum annually collected notes are "purchased" at the various medical charities. On comparing the number of notes so issued with the cost of the attendance

of the patients if all the notes were used, we find that in one institution in Bristol there would be a loss of about £5,000 per annum.

In so far as the notes issued are devoted to the help of those who could not afford to pay for proper medical attendance this loss need not be objected to; but it seems probable that many of the employés who use these notes are in receipt of sufficient wages to allow them to pay for medical advice.

The existence of the note system—which we think might be abolished if some means of checking abuse existed—is largely answerable for this increasing and unwarrantable form of hospital expenditure.

We refrain from further comment on many other aspects of this question, as we print below a paper from Miss Sturge which covers the chief points so admirably, and has perhaps greater weight because the writer approaches the subject from the lay point of view; but it should be remembered that what is true of Bristol is true of other parts of the country, so that the needless expenditure of time and money and the pauperisation of the lower classes is general.

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We are glad to publish a paper written by a well-known Bristol philanthropist, who is interested not only in our poor and the hospitals, but is also one of the leaders in the work of charity organisation. Miss Elizabeth Sturge writes on "The Misuse of Medical Charities," and her views are such that we may almost adopt them as those current in the medical profession at the present time.

The Misuse of Medical Charities. By Miss Elizabeth Sturge.—No one can question the beneficence of the work carried on by our great medical institutions, a work which becomes every year more effective as science advances, and places at the disposal of doctors means but yesterday unthought of for the cure of disease and the alleviation of suffering. It is in hospitals that new discoveries are first applied, and the whole population benefits by their growth in completeness and efficiency.

But here, as elsewhere, development brings with it the need of organisation. There is always a danger, if one aspect only

of a subject is considered, that the good done in one direction may be partially neutralised by evil unwittingly done in another; and this is the case if we consider the hospital question from the standpoint of disease alone, and not also as part of a great social problem—the problem of helping those in need without robbing them of their most valuable heritage, the power and inclination to help themselves. Inevitably our lives and habits are influenced by the institutions under which we live. This is a law from which there is no escape, and applies, as the history of the poor law tells us, with fatal force to all schemes for providing the poor, without certain safeguards, with the necessaries of daily life at the public expense. That this law applies to the inevitable contingency of sickness is shown by the fact that provident dispensaries cannot be carried on in the neighbourhood of large hospitals, though they succeed in localities sufficiently distant, or in towns where, as at Manchester, a considerable number of the hospitals have a system of inquiry which restricts the out-patients to persons whose means fall below a certain standard. Such a rule is not found so necessary in the case of in-patients, reluctance to enter an institution being usually a sufficient guarantee against abuse.

All doctors who have had experience in an out-patient department know that many persons appear there who could well afford to pay a moderate fee. In 1895 the Council of the Bath and Bristol Branch of the British Medical Association appointed a sub-committee to inquire into the question of hospital abuse in Bristol. The report of that committee showed that at the Royal Infirmary out of 1,000 cases taken at random 235 might be so described. It is a serious thing that such a misapplication of charity should go on—there is no reason to believe it worse here than elsewhere—not only because of the demoralising effect on these well-to-do people and their friends of receiving gratis what they can afford to pay for, but also because of the unfairness of such abuse to the public and to the hospital managers, who struggle incessantly against an ever-accumulating load of debt. There are signs that the "intolerable strain" may lead to a demand for the municipalisation of hospitals, and should this be the case, it is evident some means would have to be adopted for deciding who should be permitted to benefit by what would be in effect a large extension of the poor law.

This is not, however, the only point of view from which we must consider this subject. There is the question of justice to the medical profession. Doctors are some of the most generous of men, but are not as a class among the richest. They willingly give their services to help the really poor, and in private show much kindness, which the world never hears of, to patients whose circumstances preclude any return; but it is not fair, and the public has no right to expect, that they should have to attend people gratuitously who can afford to pay a fee.

The problem is no doubt a difficult one to solve. The demands of illness are imperious, and surgery requires such skill as can only be gained in hospitals; but the experience of Manchester goes far to show that the difficulty can be overcome. If it is once understood that a wage standard is in force, and that the circumstances of out-patients will be inquired into, the difficulty tends to disappear of itself. A great impetus is at once given to provident dispensaries and sick clubs, and a large number of the cases cease to attend. In Manchester the number of unsuitable applicants fell from 42.32 in 1875, the year in which the system of inquiry was begun, to 5.05 in 1903. Meantime, a Provident Dispensary Association established branches in ten districts, with an aggregate membership of 18,620, and this number would no doubt be largely increased were all the hospitals to adopt the same system of inquiry.

One of the chief obstacles in the way of systematic action on these lines is the fact that most hospital authorities use the out-patient figures as a lever for begging appeals, and would probably view with disfavour any diminution in numbers. In the present state of public opinion there is some force in this difficulty. The public needs to be taught that large numbers do not imply the best work. In an out-patient department they certainly show that the doctors are overworked, the ablest men in the profession wasting time in seeing cases of no medical or surgical importance; and, from the patients' point of view, that persons seriously ill are worn-out with hours of waiting while the trivial cases are taking their turn. It would be an immense advantage if the benefits of the hospital could be reserved for serious cases, the provident dispensary and club doctors sending any for whom another opinion was desirable to the hospital specialist.

It may be objected that to restrict the attendance of out-patients would be to inflict hardship on the poor, because the unskilled working man cannot afford even low fees. To this it may be replied that in localities at a distance from hospitals, such as the newer districts on the north and east of Bristol, it is found that far more is spent by poor people in fees than *à priori* would appear to be likely; but admitting the difficulty of single fees, the system of insurance can be applied to this as to many of the other contingencies of life. Medical attendance forms part of the benefits conferred by all the best clubs, and for a weekly payment of a few pence a whole family can secure it in a provident dispensary.

In London the subject has long been under consideration, but the hospitals have been very slow to adopt any system for restricting the enormous number of their out-patients—for advertising purposes a valuable asset. At several of them, however, the need for doing so is recognised, and an official (usually a lady) has been appointed under the title of

"Almoner," whose duty it is to see the out-patients, find out who are ineligible for gratuitous treatment, and see whether the necessities of the others are met by attendance at the hospital, or whether they have other pressing needs such as that for food or convalescent aid. To secure such help the work is carried on in co-operation with the Charity Organisation Society, to which these cases are referred. The presence of such an official not only tends to keep away unsuitable applicants but aids the humane work of the hospital by securing where possible the good home conditions without which medical treatment is of little avail.

The committee which carried out the inquiry referred to at the Bristol Royal Infirmary found that about £700 per annum could be saved there if unsuitable cases were refused. Surely as public opinion grows more enlightened, and the difficulty of maintaining hospitals becomes more acute, an improvement like this will be called for, for such a change would be at once a measure of economy for the managers, of humanity to the poorer patients, and of justice to the doctors and general public.

Notes on Preparations for the Sick.

For the various analyses contained in this report we are indebted to Mr. Oliver C. M. Davis, B.Sc., A.I.C., of the University College, Bristol.

Nutrico.—The Maltico Food Company, Kingston Cross, Portsmouth.—A compound of cereal and farina with sterilised milk and a small proportion of organic iron compound. **Cremalto.**—A soluble combination of sterilised Devonshire cream, diastase, and malt sugars. **Leci Maltico.**

Nutrico.—This is an inexpensive food, designed for children and invalids. Analysis and microscopic examination show that the basis of the preparation is farinaceous, and the outer portions of the cereals used in its manufacture have not been entirely removed, the latter fact probably accounting for the high proportion of phosphates present in the ash. In addition, the presence of proteids was well indicated, so that the food may lay claim to its description as a true "protoplasmic" food.

Cremalto.—This substance is a preparation of extract of malt in combination with Devonshire cream. Chemical analysis shows that it contains maltose, but no added sugar. A good proportion of pleasant smelling, readily saponifiable fat was also extracted from it, confirming the fact that it is what the

makers state it to be. It possesses the advantage of being very palatable, and should be serviceable where a fatty, nutrient food is required.

Leci Maltico.—This preparation is stated to differ from plain "Maltico" by the addition of a small proportion of lecithin. An examination shows that it possesses the usual characteristics of a well-malted food. Starch is entirely absent, but a large amount of proteids are present. The ash also gives reactions, showing the presence of iron and phosphorus.

Savore.—SAVORY AND MOORE, 143 New Bond Street, London.—The above preparation is described as a nutrient food, containing milk and cereal proteids. An analysis shows that its basis is starchy, but in addition it yields to cold water a good proportion of proteid matter. Phosphorus is also present in the ash. It should prove a valuable food for invalids where the use of farinaceous matter is not objectionable. It is already cooked, is appetising, and easily digested.

Diabetic Foods.—CALLARD & Co., Regent Street, London.—We have received a selection of these excellent preparations for the diabetic :—

Casoid Meal Bread, made from casein and starchless bran.
Casoid Rusks.
Casoid Biscuits and Lunch Biscuits.
Cocoanut Biscuits.
Ginger Biscuits.
Prolacto Biscuits. These contain 50 per cent. of albuminoids, and are free from starch and sugar.
Diabetic Marmalade, free from sugar.

Many so-called foods for the diabetic are not what they profess to be, and are very misleading not only to the patient but to the physician. Accordingly a careful examination of several of the above has been made in the University College Laboratory by Mr. Oliver C. M. Davis, B.Sc., A.I.C., who reports that they are worthy of special comment, inasmuch as they are almost absolutely starch free, and in some cases would not show the presence of starch when *chemically* examined. In all cases the amount of starch is limited to a very few scattered granules, so that great care has been exercised in their manufacture, and they are all that the makers claim them to be, being *virtually* free from starch and other carbo-hydrates. These preparations may be relied upon to be perfectly genuine, and worthy of all commendation.

With such foods at his command, and with so great a variety of palatable and nutritious kinds of bread and biscuits, there is no longer any valid excuse for the diabetic who declines to carry

out a rigid diet of food free from starch and sugar. Whether such a rigid programme is necessary, and will conduce to the well-being of the patient, is for the physician to determine; but the difficulties in obtaining the necessary foods for the graver forms of diabetes no longer exist.

Billon's Ovo-Lecithin Pills.—London Depôt, 16 Water Lane, Great Tower Street, E.C.—Lecithin is a chemically-defined body generally extracted from the egg, but also found in brain, blood, milk, &c. The ovo-lecithin is the distearo-glycero-phosphine ether of choline. The combination has given good results in various forms of neurasthenia, also in pancreatic forms of diabetes and in the adynamia of the aged. In various forms of debility associated with anæmia and in tuberculosis it has been found to give good results. Each pill contains 5 centi-grammes, and three to six may be given daily.

Shredded Wheat. Triscuit.—THE SHREDDED WHEAT COMPANY, 6 and 8 Eastcheap, London, and THE NATURAL FOOD COMPANY, Niagara Falls, U.S.A.

The endeavour to utilise the whole of the wheat grain in the making of bread has led to the invention of the shredding process. The production of whole meal in the form of shreds which have been cooked and resolved to the consistence of a biscuit is the basis of various shredded products.

Shredded Wheat "Biscuit" and "Triscuit" are made by machinery direct from clean whole grains of steam-cooked wheat, without the husk or use of ferment or grease. Both are formed of threads of wheat laced and thoroughly cooked—the "Biscuit" being baked in Ferris Wheel ovens and the "Triscuit" baked by electricity.

Shredded Wheat "Biscuit" is a dainty little loaf or "pillow" of wheat, and provides a ready-cooked breakfast dish or basis for puddings and sweets.

"Triscuit," the electric cooked compact form, is used as bread, or biscuit, or toast, with butter, cheese, preserves, &c., and forms an excellent basis for savouries and sandwiches.

Both products are remarkably crisp and porous, and when eaten excite the flow of saliva and absorb the gastric juices, thus ensuring complete mastication and promoting digestion.

Chemical analysis shows a close resemblance between Shredded Wheat Biscuit and Triscuit and whole wheat meal, so that we have a porous and easily digested form of bread, prepared from wheat and nothing but wheat. Dietetically it is superior to the average bread, inasmuch as it contains a large proportion of soluble matters due to the presence of dextrinised starch. The biscuit keeps well, is not hygroscopic, and does not lose anything by evaporation. These products are a

valuable addition to the dietetic armamentarium of the physician, and may be made the basis of a great variety of nutritious dishes.

"Nektar" Non-Alcoholic Wines.—REINHEIMER AND COMPANY, Surbiton, Surrey.

Samples of these wines were exhibited at the Oxford meeting, and attracted much attention. They are made at Worms on the Rhine, and have achieved a considerable reputation on the Continent during the last five years. They are excellent preparations of a pasteurised juice of the grape, apple, pear, bilberry, &c., and a considerable variety may be obtained—Hock, white or red, Tokay, Champagne; Bilberry, Pear or Apple Wine; also Bilberry and Apple Cider.

They are free from alcohol, and do not contain any artificial preservatives. Their food value is greater than that of fermented wines, inasmuch as they contain some fifteen to twenty-five per cent. of grape sugar in combination with organic acids and salts with albumen. Nektar Wines are especially indicated in all cases where the capacity for digesting and appropriating nutriment is greatly impaired, and in febrile maladies where the food should be in the fluid form. They are quickly and easily absorbed. The malic acid of Apple Nektar and the tartaric acid of Grape Nektar are cooling and refreshing, and tend to promote intestinal action, also to correct tendencies to constipation. Moreover, these organic acids are important as disinfectants in the alimentary canal, resisting the growth of disease germs and maintaining intestinal antisepsis. While in the system their salts become converted into carbonates, they impart alkalinity to the urine, and are on that account valuable in gouty states with a tendency to the deposition of acid urates. Owing to their laxative and diuretic properties, Nektar Wines are useful in all uric acid diseases, such as gout, rheumatism, &c. They have been found helpful in hæmorrhoidal affections, in hyperæmia of the liver, in chronic constipation, in cardiac diseases with a tendency to visceral congestion. The tendency to renal and hepatic concretions is often advantageously modified by the use of Nektar. It is prescribed with success in cases of abdominal plethora associated with a deposition of much superfluous fat. Its usefulness in cases of bronchial, gastric, and intestinal catarrh, and in anæmia, is well established. The happy combination of food qualities in these wines gives them a high range of utility, but no connoisseur will mistake them for the alcoholic products.

Plasmon Tea.—DIGESTIBLE TEA SYNDICATE COMPANY, 22 Fenchurch Street, London.

This variety of Plasmon is likely to be in much demand, inasmuch as it has the nutrient value of Plasmon in association

with the stimulating proportions of a good tea. The amount of Plasmon in the tea is 10 per cent., and it is said that a large proportion of the tannin has been rendered innocuous. It is very convenient for use, and its flavour is excellent. Plasmon Tea is recommended to all who wish to have a good, digestible and nourishing tea; it is made in the ordinary way, but the presence of Plasmon gives the product a milky appearance when poured out.

Helmitol. Citarin.—THE BAYER COMPANY LIMITED, Elberfeld and London.

Helmitol is an improved and reinforced hexamethylene-tetramine (urotropin) which is being extensively employed as a urinary antiseptic. Experiments have shown that Helmitol liberates formaldehyde both in alkaline and in acid urine, and that 15 grains render the urine sterile for a longer period than does double that quantity of urotropin. Under the influence of Helmitol the urine becomes acid, which is of importance in ammoniacal fermentation, while it is not objectionable in acute conditions, since, owing to the analgesic action of the drug, any irritation is prevented without the necessity of administering alkalies. Hence Helmitol is indicated in acute and chronic affections of the urinary tract, such as cystitis, urethritis, pyelitis, &c. The average dose is 10 to 15 grains, two or three times daily, given preferably in water. Helmitol is very well tolerated by the system, and when given in moderate doses (*e.g.* 45 grains) no unsatisfactory effects as regards the gastro-intestinal canal, the circulation and nervous system, have as yet been observed. The internal administration of Helmitol in gonorrhœa may be well combined with injections of Protargol, which is considered by many authorities the most powerful gonococcicide.

Citarin.—Chemically, Citarin is anhydromethylene citrate of sodium. Its action depends upon the liberation of formaldehyde, which is set free in the blood and combines with uric acid, forming a combination which, as experiments have shown, is very soluble and easily eliminated. The other component of Citarin aids by reason of the fact that the salts of organic acids are converted into carbonates in the system, and thereby increase the alkalinity of the blood and its capacity of holding uric acid in solution. Experiments have shown that the elimination of the latter is increased by 35 per cent. after the administration of Citarin. Citarin is mainly indicated in that class of diseases in which an excessive accumulation of uric acid in the organism, and conditions directly resulting therefrom, are in question, particularly therefore all forms of gout. Experiments have shown it to be an excellent symptomatic remedy for all acute attacks of gout, and for the exacerbations occurring in the chronic stages of that disease; it surpasses even colchicum, and also has the additional advantages of being

both innocuous and pleasant to take. The dose is in general 30 grains, from four to six times a day, for as long as the attack of gout lasts. It is well to begin treatment as early as possible and at the first sign of an attack. The simultaneous administration of aspirin has been recommended and proved beneficial. It is essential to success, however, that Citarin be taken *as early as possible*, viz. at the very first sign of an approaching attack. In this way it will often be possible to entirely suppress the attack by the aid of large doses of Citarin. As a prophylactic the administration of Citarin in uric acid diathesis may prove useful.

Tabloids.—BURROUGHS, WELLCOME & Co., London.

PILOCARPINE NITRATE.—The considerable variation in physiological action exhibited by the Galenical preparations of jaborandi has led to experiments which have proved that the full physiological effect of jaborandi is produced by pilocarpine, and, further, that the nitrate is the most suitable salt of the alkaloid for medicinal purposes.

THREE VALERIANATES—Quinine, Iron and Zinc, āā gr. j.—A combination of the valerianates of quinine, iron and zinc has long been esteemed as an efficient tonic. "Tabloid" Three Valerianates enables this widely-useful compound to be employed in cases where the disadvantages of former methods of administration have rendered it objectionable.

IRON AND STRYCHNINE PHOSPHATE, āā gr. j.—In this combination iron and strychnine are presented in the same dosage as in one fluid drachm of the official syrup of phosphate of iron with quinine and strychnine. It is useful in the case of those who cannot tolerate quinine.

CALOMEL AND OPIUM—Calomel gr. j., Opium gr. ½.—This well-known combination has the merit of antiquity, and in the tabloid form should be as useful as heretofore.

CALOMEL AND SODIUM BICARBONATE, GREY POWDER AND SODIUM BICARBONATE.—These tabloids are prepared in two strengths: half a grain and one grain of the mercurial with two and half grains and five grains of the sodium salt respectively. They effectually dispose of the disadvantages associated with the administration of these drugs in the form of powders.

SOLOID MERCURIC POTASSIUM IODIDE, gr. 4.37.—The powerful antiseptic properties of mercury biniodide are well known, and the "Soloid" products of Mercuric Potassium Iodide, hitherto issued, have been very much appreciated and widely prescribed by medical men as a means of securing the effects of mercury biniodide in solution. In order to extend the usefulness of this agent, "Soloid" Mercuric Potassium Iodide, gr. 4.37 (0.283 gm.), is now issued. One dissolved in ten ounces of water forms a solution of 1 in 1,000 (frequently known as

mercury biniodide solution). The colour of "Soloid" Mercuric Potassium Iodide is due to a harmless ingredient added as a safeguard against errors.

LIST OF "SOLOID" PREPARATIONS.

"Soloid" Mercuric Potassium Iodide, gr. 1.75 (0.113 gm.). Issued in tubes of 25 and bottles of 100.

"Soloid" Mercuric Potassium Iodide, gr. 4.37 (0.283 gm.). Issued in bottles of 25 and 100.

"Soloid" Mercuric Potassium Iodide, gr. 8.75 (0.567 gm.). Issued in bottles of 25 and 100.

"TABLOID" OPHTHALMIC ZINC SULPHATE, gr. $\frac{1}{250}$ (0.00026 gm.), and COCAINE HYDROCHLORIDE, gr. $\frac{1}{200}$ (0.0032 gm.).—This combination of zinc sulphate with cocaine hydrochloride is now issued. It will be found useful when it is desired to prescribe an astringent painlessly in ophthalmic practice. "Tabloid" ophthalmic products are immediately soluble on the conjunctiva, and are rapid in their action.

"TABLOID" GLYCEROPHOSPHATES COMPOUND, dr. $\frac{1}{2}$ (1.8 c.c.).—"Tabloid" Glycerophosphates Compound possesses many advantages over the ordinary compound syrup of glycerophosphates which have been so extensively prescribed during the past few years in the treatment of enfeebled conditions of the nervous system. Each "tabloid" product contains the combined glycerophosphates of calcium, sodium, potassium, magnesium and iron, with pepsin, diastase, ignatia amara, and kola, equivalent to half a fluid drachm of syrup of glycerophosphates. All risk of deterioration by evaporation, crystallisation, or oxidation, so frequently associated with ordinary syrups, is entirely avoided when "tabloid" products are prescribed.

Ext. Radicis Pernionis.—ARTHUR & Co., Ogle Street, London, W.

This concentrated tincture of the *Tamus communis* is said to be a valuable hæmostatic, and is guaranteed to relieve the itching of chilblains almost immediately.

Aquaform, Di-oxy-methylene-hydrate.—This solution is said to be very efficient in relieving perspiring hands.

Tanno-Pumilio.—This compound of digallic acid with the essential oil of the pumilio pine is reported to give excellent results as a local application in cases of excessive perspiration of the feet. It also allays the irritation of herpes zoster.

Dr. R. B. Waite's Local Anæsthetic.—THE DENTAL MANUFACTURING COMPANY, London.

This aqueous solution of many drugs is very useful in dental operations, and as it is not a secret preparation we are able to

speak in its favour. It contains less than 1 per cent. of cocaine, so that when using this solution one is able to obtain good results whilst introducing only a very small dose of the drug into the system. For the painless extraction, two or three minims should be injected into the gum on each side of the tooth. It is also useful for deadening the gum before applying the rubber dam and silk prior to the filling of teeth. It can also be used before separating front teeth when more room is required for the operation of filling.

Adrenalin, for dental purposes.—Adrenalin is a styptic, and is used by dentists in operations on the living pulp of a tooth. In the preparation of a cavity for filling, in a carious tooth, the pulp is often exposed. If it is decided to kill the nerve, a little of the fluid should be applied to the bleeding surface, when the pulp immediately shrinks away, and the dentist is then able to enlarge the opening without giving any pain. A crystal of cocaine can now be applied, and then a piece of soft dental base rubber may be pressed on the pulp. The pressure, as well as the action of the adrenalin, forces all the blood out of the pulp, which pulp can then be extracted and removed without pain to the patient.

Glyco-Thymoline, an alkaline, antiseptic, deodorising, and non-irritating solution.—KRESS & OWEN, New York.

It owes its value to the fact that it is a non-irritating antiseptic. For this reason it is useful for washing out internal cavities and passages, such as the nose, bladder, &c. A solution of half an ounce or more to the pint of warm water can be used in nasal catarrh with at least temporary benefit. A stronger solution (20 or 25 per cent.) makes an excellent mouth wash or gargle in foul conditions of the pharynx, gums, &c. It has been found distinctly useful in cases of cystitis, especially in elderly men. In all these and in other conditions its antiseptic action is not very powerful, but it is always a safe drug to employ, and it usually gives good results.

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the List in June:

August 31st, 1904.

The American Gynecological Society (1) ... ... 1 volume.
Cassell & Company, Limited (2) ... ... 2 volumes.
L. M. Griffiths (3) ... ... 1 volume.
Rhode Island Medical Society (4) ... ... 1 volume.
Sir James Sawyer, M.D. (5) ... ... 1 volume.
Editor of *Virginia Medical Semi-Monthly* (6) ... ... 1 volume.

FIFTY-THIRD LIST OF BOOKS.

The titles of books mentioned in previous lists are not repeated.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Ackland, W. Sanders and T. G. *Results of the Census in 1901* 1903
Allbutt, T. C. ... ... *Notes on the Composition of Scientific Papers* 1904
American Gynecological Society; Album of Portraits of Fellows ... ... (1) 1900
Appel, E. L. C. ... *How to Become a Certified Midwife* ... ... [1904]
Berry, G. A. ... ... *Manual of Practical Ophthalmology* 1904
Bosanquet, W. C. ... *Serums, Vaccines, and Toxines in Treatment and Diagnosis* ... ... (2) 1904
Bourcart, M. ... ... *Le Ventre.* Part I. 1904
Caiger, F. F. ... ... *The Diagnosis and Management of Doubtful Cases of Diphtheria* 1904
Caldwell, R. ... ... *The Prevention of Disease in Armies in the Field* ... 1904
Chapman, W. L. ... *Auto-Intoxication* ... ... (4) 1903
Chilcott's Descriptive History of Bristol ... ... (3) 6th Ed. [1844]
Clarke, W. B. ... ... *The Meaning of a Modern Hospital* 1904
Dürck, H. ... ... *Atlas and Epitome of Special Pathologic Histology.* (Ed. by L. Hektoen). ... ... [Vol. II.] 1901
Encyclopædia Medica Vol. XIV. 1904
Fisher, J. H. ... ... *Ophthalmological Anatomy* 1904
French, H. ... ... *Medical Laboratory Methods and Tests* 1904
Gadd, H. W. ... ... *Drugs* 1904
Glassington, C. W. ... *Golden Rules of Dental Surgery* ... ... [N.D.]
Gould, G. M. ... ... *Biographic Clinics.* Vol. II. 1904
Grimsdale, H. B. ... *Errors of Refraction* 1904
Haines, F. Peterson and W. S. [Eds.] *Text-Book of Legal Medicine and Toxicology.* Vol. II. 1904
Holt, L. E. ... ... *The Care and Feeding of Children* ... ... 3rd Ed. 1904
Kelynack, T. N. ... *The Sanatorium Treatment of Consumption* 1904
Lindsay, J. A. ... ... *Diseases of the Lungs and Heart* 1904
Martindale and W. W. Westcott, W. *The Extra Pharmacopœia.* 11th Ed. (Revised by W. H. Martindale and W. W. Westcott) 1904
Miles, A. Thomson and A. *Manual of Surgery.* Vol. II. 1904
Noorden, C. von ... *Diseases of Metabolism and Nutrition.* Parts IV., V. 1904
Nuttall, G. H. F. ... *Blood Immunity and Relationship* 1904
Owen, E. ... ... *Cleft-Palate and Hare-Lip* 1904
Paget, S. ... ... *What we owe to Experiments on Animals* 1904
,, ... *The Case against Anti-Vivisection* 1904
Pamphlets. 29 vols. ... ... [V.D.]
Peterson and W. S. Haines, F. [Eds.] *Text-Book of Legal Medicine and Toxicology.* Vol. II. 1904
Phillips, C. D. F. ... *Materia Medica, Pharmacy and Therapeutics: Inorganic Substances* ... ... 3rd Ed. 1904

Probyn-Williams, R. J. *Golden Rules of Anæsthesia* ... ... [N.D.]
Richardson, W. G. ... *Development and Anatomy of the Prostate Gland* ... 1904
Riddell, J. S. ... ... *A Manual of Ambulance* ... ... 5th Ed. 1904
Sanders and T. G. Ackland, W. *Results of the Census in 1901* 1903
Sawyer, Sir J. .. *Practical Medicine* ... ... (5) 4th Ed. 1904
Searle, R. B. ... ... *Medical Tuberculosis* 1904
Symes, J. O. ... ... *The Bacteriology of Every-day Practice* ... 2nd Ed. 1904
Taylor, E. H. ... *Treatise on Applied Anatomy* 1904
Thomson and A. Miles, A. *Manual of Surgery.* Vol. II. 1904
Thorne, L. T. ... ... *The "Nauheim" Treatment of Chronic Heart Disease* 1904
Ward, A. H. ... ... *Clinical Studies in Syphilis* 1904
Watson, J. K. ... ... *Handbook of Midwifery* 1904
Wenkebach, K. F. ... *Arhythmia of the Heart.* (Trans. by T. Snowball) 1904
Westcott, W. Martindale and W. W. *The Extra Pharmacopœia.* 11th Ed. (Revised by W. H. Martindale and W. W. Westcott) 1904
Whiteford, C. H. ... *Anæsthetics in Surgery* 1904
Whitelocke, R. H. A. *Football Injuries* 1904
Wingrave, W. ... *Adenoids* 1904
Yeo, I. B. .. ... *The Therapeutics of Mineral Springs and Climates* (2) 1904
Younger, E. G. ... *Insanity in Every-day Practice* 1904

TRANSACTIONS, REPORTS, JOURNALS, &c.

American Pediatric Society, Transactions of the ... ... Vol. XV. 1903
Archivio di Ortopedia 1903
Bibliographia Medica ... ... Tome III. 1903
British Gynæcological Journal, The ... ... Vol. XIX. 1903-04
Centralblatt für innere Medicin 1902
China Medical Missionary Journal, The ... ... Vol. XVII. 1903
Clinical Journal, The ... ... Vol. XXIII. 1904
Edinburgh Medical Journal, The ... ... N.S., Vol. XV. 1904
Hospital, The ... ... Vol. XXXV. 1904
Hospitals—
Middlesex Hospital Reports for 1902 1904
Journal of Medical Research, The ... ... Vol. X. 1903-04
Journal of the Sanitary Institute ... ... Vol. XXIV. 1903
Medical Chronicle, The ... ... 4th series, Vol. VI. 1903-04
Medical Library and Historical Journal ... ... Vol. I. 1903
Medical Review of Reviews ... ... Vol. IX. 1903
Northumberland and Durham Medical Journal, The 1903
Obstetrical Transactions ... ... Vol. XLV. 1904
Ohio State Medical Society, Transactions of the 1903
Philadelphia County Medical Society, Proceedings of the Vol. XXIV. 1903
Progressive Medicine ... ...Vols. II.–IV., 1903; I., II. 1904
Rockefeller Institute of Medical Research, Studies from the ... Vol. I. 1904
Sei-I-Kwai Medical Journal, The ... ... Vol. XXII. 1903
University of Penna. Medical Bulletin ... ... Vol. XVI. 1904
Virginia Medical Semi-Monthly ... ... (6) Vol. VIII. 1904

Obituary.

HARRY ARTHUR BENHAM, M.D.

The death of Dr. Benham, in his fiftieth year, on September 14th, 1904, has given rise to much regret throughout a large circle of medical, civic, masonic, and other friends and patients. He had been Medical Superintendent of the City and County Asylum at Stapleton for more than fourteen years, and previously was Assistant Medical Officer for a long period. His health had been failing for the last two years; his heart was known to be defective, so that a fatal syncope was not altogether surprising. He had great administrative ability, and exercised admirable control over a large and complex group of inmates of a class which are at all times difficult to guide. He took his degree of M.D. at Aberdeen in 1883, and has since devoted himself entirely to psychological work. He was Clinical Lecturer on Mental Diseases at the University College, Bristol, and a member of the Council of the Medico-Psychological Association of Great Britain and Ireland. He was an enthusiastic Freemason, had held many important offices in the Masonic Order, and was held in much esteem by a large number of Masonic friends, many of whom attended his funeral at Arno's Vale on September 17th, 1904. In his profession he took a leading position, and was frequently consulted on obscure forensic questions.

Dr. Lionel A. Weatherly writes as follows: "It was with feelings of the deepest regret and sadness that I heard the news of the death of my old friend, Harry Benham. I had been a fellow student with his deceased brother in 1870, and knew him then, but had no idea at that time that he intended to enter the medical profession. A few years after this he, however, decided that a doctor's life would suit him better than any other, and after studying at the Bristol Medical School, at the London Hospital, and at Aberdeen, he took the degrees of M.B., C.M. at that University in 1880. His first appointment was that of Assistant Medical Officer to the Dundee Royal Asylum, and soon afterwards he obtained the post of Assistant Medical Officer at the City of Bristol Asylum, with the late Dr. George Thompson as Superintendent. I well remember how quickly Dr. Thompson recognised the valuable helper he had in Dr. Benham, and when in 1890 ill-health caused his retirement, it was clear that no candidate for the office stood any chance against our friend, who at so early an age has passed away from our midst. The Committee can never have regretted the choice they then made, for in Dr. Benham they had a superintendent

whose common sense, powers of organisation, clinical knowledge and humane feelings eminently fitted for the difficult work of presiding over such a large and important institution as the Asylum of the City and County of Bristol. Dr. Benham has seen this Asylum gradually grow and ever improve: the Committee would, I know, be eager to acknowledge how much they owe to the knowledge, energy, and love of his work of their Superintendent. All who had the happiness of being his friend will ever feel his death, and the medical profession of the West of England has indeed lost a valued member.

"The Medico-Psychological Association of Great Britain and Ireland was not slow to realise his worth, and he soon found a place on its Council. In 1899 he was appointed to the very important office of Registrar, and for some three years he carried out the duties to the fullest satisfaction of the Educational Committee and of the whole Association.

"Some two years ago his health compelled him to relinquish his work and take a long holiday. This he did, but when he came again amongst us it was evident that he was still in a very precarious condition. Bravely, however, he continued his work in the institution he so loved, to which he had so long given the best years of his life, and in which he peacefully fell asleep.

"He has gone from amongst us at a comparatively early age, but the memory of a true and kind heart, of a well-balanced and common-sense mind, will long remain ever present with all who could claim him as their friend."

A city alderman, who has long been on the Asylum Committee and has seen much of Dr. Benham's work, writes of him as follows: "By few will Dr. Harry Benham be more sincerely missed than the members of the Visiting Committee of that institution of which he was the able Medical Superintendent. When I first joined the Committee I was at once struck by Dr. Benham's courteous and genial manner, and during the whole time I knew him this never varied. But, speaking strictly from a committeeman's point of view, it was his administrative ability—which was of a very high order—that one most admired. It is difficult for an outsider to realise the innumerable matters, many of them of a difficult and complex nature, which have to be dealt with in an Asylum containing nine hundred patients and a necessarily large staff of nurses, attendants, and others; but day by day Dr. Benham did deal with these matters quietly, yet firmly, always with tact and good judgment, and so far as my experience goes invariably with the approval of the Visiting Committee. He was devoted to his work, and the welfare of the patients was his first consideration. A man of artistic tastes, he designed the decoration of the various wards in the Asylum, which decorations were carried out by the inmates with the most satisfactory results, and it was his constant care to see that everything about the wards was as bright and cheerful as good taste could make it. He grew a large number of plants and flowers, but only that

his patients might enjoy them. The Corporation of Bristol has lost a faithful and valuable officer, and it is difficult to realise the committee-room at Fishponds without Dr. Harry Benham's familiar presence."

ARTICLES BY DR. H. A. BENHAM.

"Case in asylum practice where seven ribs were discovered to be fractured after death." *J. Ment. Sc.*, 1885-6, xxxi. 50-3.

BENHAM (H. A.) and J. GREIG SMITH: "Calculus on foreign body in bladder of an epileptic patient." *Bristol M.-Chir. J.*, 1886, iv. 38-42, 1 pl.

Local Medical Notes.

Long Fox Memorial Lecture.—The first of the lectures instituted in memory of the late Dr. Edward Long Fox will be delivered on Friday, November 4th, at 4.30 p.m. at the University College, Bristol.

University College, Bristol.—Students of the College have been successful in the following examinations:—University of Cambridge.—*M.B. Examination: Pharmacology and General Pathology*—F. Shingleton Smith. University of London.—*M.B.: Intermediate Examination*—J. W. J. Willcox; *Organic Chemistry only*—V. Moxey, F. S. Scott, L. J. Short. Conjoint Board of the Royal Colleges of Physicians and Surgeons of England.—*First Examination: Chemistry*—S. H. Kingston, E. R. Sircom, B. C. Eskell, H. Templeton. *Practical Pharmacy*—P. S. Connellan, F. C. Morgan, J. F. H. Morgan. *Biology*—E. E. Davies. *Second Examination: Anatomy and Physiology*—E. V. Connellan, R. N. W. Biddulph. *F.R.C.S.: Final Examination*—F. R. Walters. Society of Apothecaries.—*Surgery*—J. E. Jones. *Medicine and Forensic Medicine*—A. H. Hughes. *Forensic Medicine*—J. E. Jones. Faculty of Physicians and Surgeons, Glasgow. Dental Board. *First Examination*—C. H. Taylor.

Arrangements are being made for the establishment of a **post-graduate course of instruction,** and we have no doubt that the scheme will meet with general approval and will be of much value to candidates for the higher examinations. It is proposed that a two or three months' course of lectures, with special clinical opportunities both at the Royal Infirmary and General Hospital, shall be at once commenced for any qualified candidates who may need such instruction. The details of this course will shortly be announced.

Royal Hospital for Sick Children and Women.—Dr. T. A. Green has been elected as Out-patient Surgeon.

The late Dr. George Charles Wigan, of Portishead.—A beautiful stained-glass window of three lights, in memory of the late Dr. G. C. Wigan and Mrs. Wigan, has been placed in Portishead Parish Church, and was dedicated by the rector on July 16th.